Planning For Economic Development:

Methodology, Strategy, and Effectiveness

A COMPARATIVE CASE STUDY OF INDIAN AND EGYPTIAN EXPERIENCES, 1946 - 1972

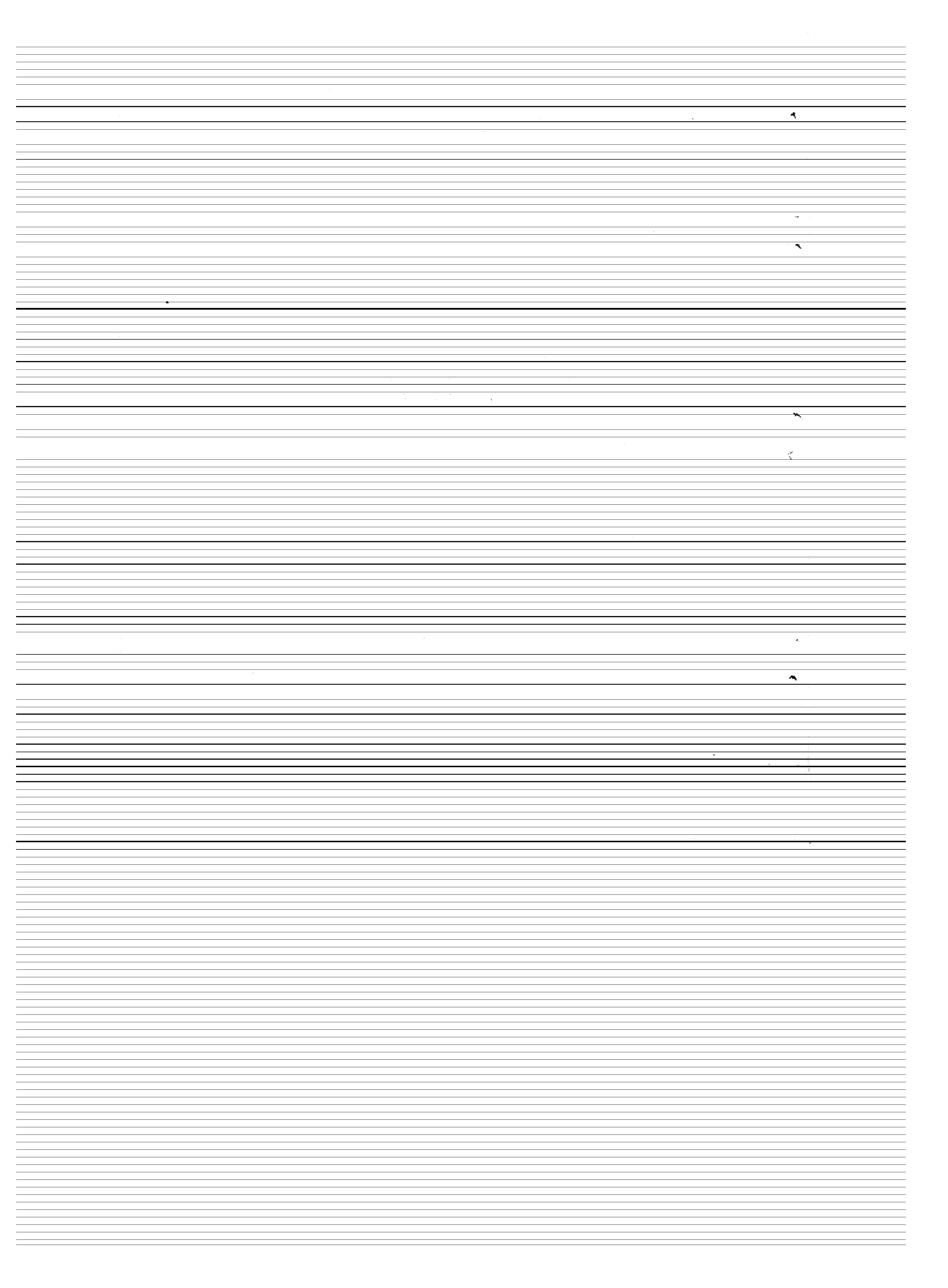
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TO

MY PARENTS,
MY WIFE SAFAA
AND MY DAUGHTERS ANN
AND LAMMIAA.



PREFACE

This study is my PH. D. Thesis (University of Glasgow, Department of International Economic Studies, February, 1968). It is a quantitative comparative case study in development planning. It is concerned with planning experiences of two of the developing countries, India and Egypt. It covers the period 1946-1972.

The reasons for selecting these two countries are mainly : (1) they are among the early starters in adopting planning as a tool of policy for economic development ; (2) their experiences have both theoretical and practical interest, particularly during this experimental stage of development planning ; (3) they represent a large number of overpopulated and economically underdeveloped countries ; and (4) there are sufficient data on the two experiences that warrant treatment.

The aim of this study is twofold : first, to provide a critical review of the basic features of planning outline and strategy in the two countries ; and second, to evaluate the two countries' planning exercises against the actual results achieved. To make this enquiry manageable, important questions such as regional planning, planning organization and social and cultural aspects of planning are not dealt with.

In general, the shortcomings of the statistical material on the economies of underdeveloped countries hardly need to be stressed. The statistical data of the two countries in this respect are no exception. The data used in this study should therefore be treated as indicating the order of magnitude rather than the precise measurement of the phenomena they are supposed to depict.

The following treatment consists of two parts. The first part is the background of the study. It presents the planning problem — the problem of economic underdevelopment —, the basic elements of the planning process, the limitations of the comparative approach, and the pre-planning economic structure and changes according to which the Indian and the Egyptian planners had to operate. The second part is concerned with the two planning experiences. It is an attempt at providing a brief review of planning history in the two countries and the basic principles governing their planning activities, at examining critically the basic features of their planning methods, outline and strategy for the period 1951-1972, and at evaluating these planning activities in the light of the actual performance of the Indian and the Egyptian economies during the period 1951-1966.

Accordingly, Chapter I is an attempt at dealing with these questions : (1) what is the magnitude of the problem of economic underdevelopment ? (2) what are its basic characteristics, particularly those which are relevant to India and Egypt ? and (3) what are the possible ways of tackling this problem ?

Chapter II is devoted to (1) a critical examination of planning as a tool of policy, with special reference to its possible defects and shortcomings in underdeveloped countries ; and (2) a review of the basic elements of the planning process. The third part of this Chapter is concerned with a brief description of the nature and the limitations of the comparative approach with special reference to this study.

Chapter III gives (1) a general review of the basic features and changes of the Indian and the Egyptian economies during the first forty five years of this century ; and (2) a detailed analysis of the two countries' economic structures and changes during 1946-50, the five years immediately before the two planning experiences began.

Chapter IV briefly reviews the history of economic planning in the two countries, and the Indian and the Egyptian "official" views on economic planning as a tool of policy.

Chapter V is devoted to a critical examination of planning activities during the first two phases of the two experiences, with particular emphasis on the methods used, the strategy adopted and the quantitative targets set. The first phase covers the period 1951-56, and the second, the period 1956-61.

Chapter VI continues the discussion on planning methods, outline and strategy of the two experiences during their third and fourth phases. These phases cover the periods 1961-66 and 1966-71, respectively, for India, and the periods 1960-65 and 1965-72, respectively, for Egypt.

Chapter VII attempts an overall appraisal of the two planning experiences according to the planned and actual national income data for the first three phases, 1951-1966, and examines critically the degree of fulfilment of the detailed planned targets of the implemented plans of these phases.

Chapter VIII is devoted to a re-examination of the major economic problems of the two countries, analysed in Chapter III, after 15 years of planning, in an attempt to evaluate the effects of the results achieved on the magnitude and nature of these problems.

In conclusion, the major planning defects are summed up and a few tentative suggestions for future policies are proposed.

It is difficult to acknowledge adequately the debt which one incurs in the preparation of a study like this. The teachers and the fellow students with whom a graduate student shares seminars and classes constitute valuable sources of ideas and their clarifications.

However, it is with a sense of deep gratitude that I wish to acknowledge my debt to Professor Alec Nove under whose supervision the work was done. His encouragement, patience, advice, and numerous corrections have been invaluable in the completion of this work.

Special appreciation is expressed to Professors Thomas Wilson, Bent Hansen, and Edith Penrose, for their interest, encouragement and constructive suggestions.

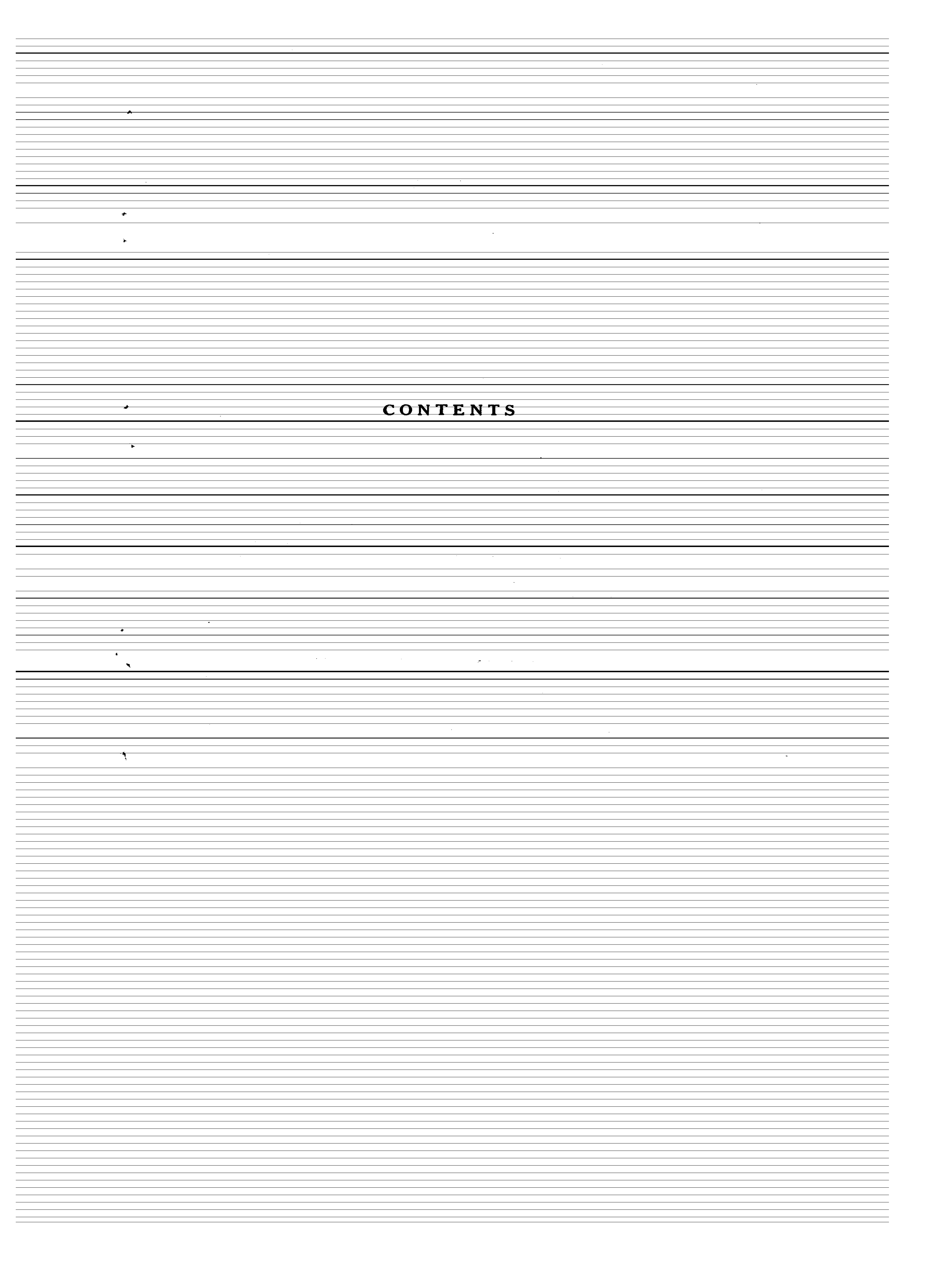
I gratefully thank Mr. G. Abbot, Mr. N. Warman, Mr. G. Krimpas, Dr. V. Duggal, and Mr. D. Matko, who have given helpful comments on an earlier outline or portions of an earlier draft of this work. Special thanks are due to my friends, Dr. Eric Rahim, Mr. Mustafa Araba, Mr. Hassan Mahmoud, and Drs. El-Sayed Abd-El-Rahman, Fakhry Shihab, Ali Monofy, Ahmed Fahmy Kamel, Atef Sidkey, Mustafa El-Saied, Rashad Moussa, and Galal Amin, who helped me in many ways.

I wish to acknowledge with thanks the valuable help which I received from my friends in the Egyptian Ministry of Planning, the Egyptian Institute of National Planning, and the Egyptian Central Agency for Public Mobilization and Statistics. Appreciation is also expressed to Miss W. Thorne of the India House Library, London, for her valuable help during my frequent visits, and to the Indian Planning Commission for the encouragement and help which I received during the course of this work.

I am deeply in debt to Cairo University whose generous scholarship award permitted the undertaking of this work.

I owe special thanks to my friend and colleague Dr. Ahmed Fahmy Kamel for his able supervision of every detail during the printing process of this work — a task which I still consider as impossible.

I remain deeply indebted to my wife, Safaã, and my daughters Ann and Lammiaâ, for their inspiration, assistance and sacrifices during the course of this work.



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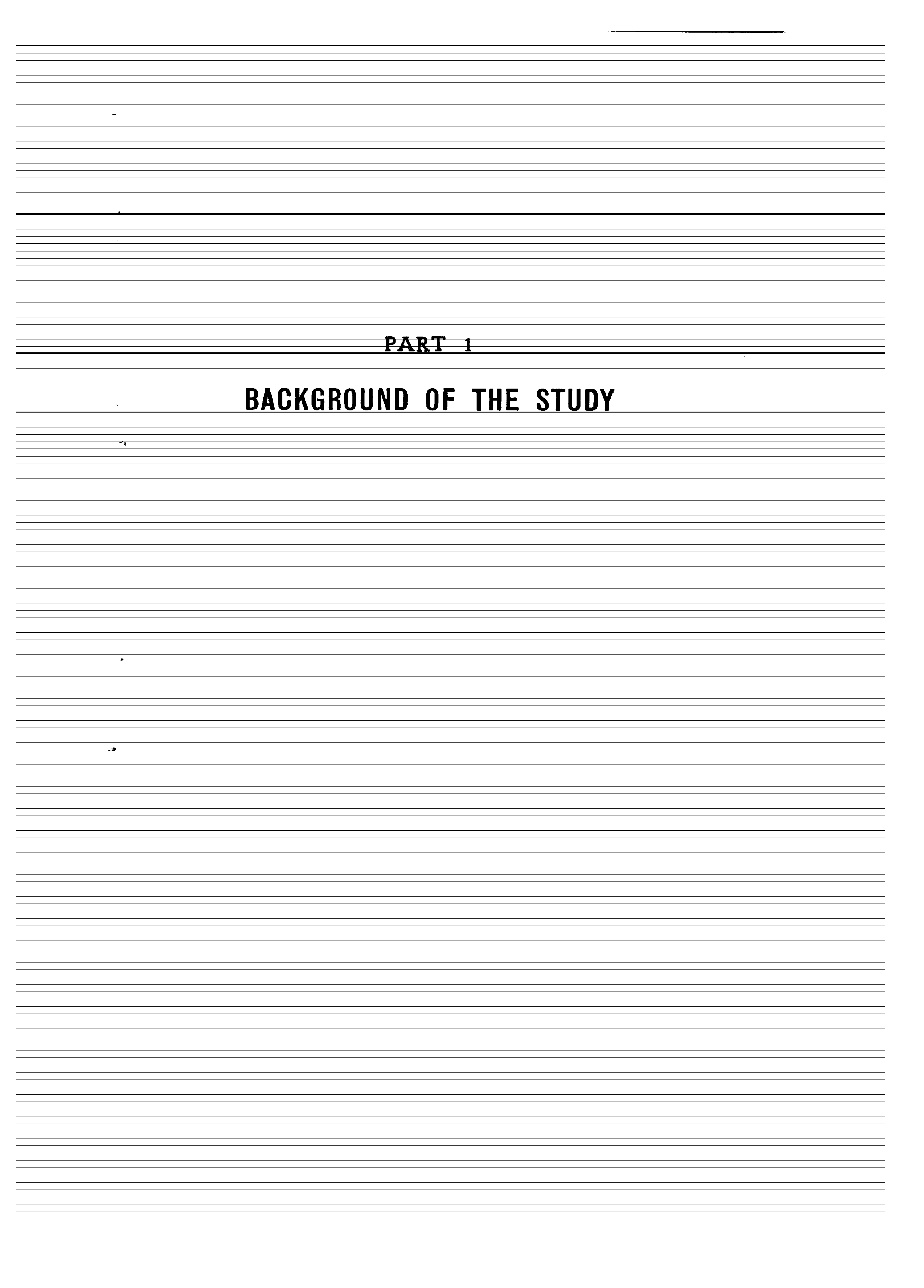
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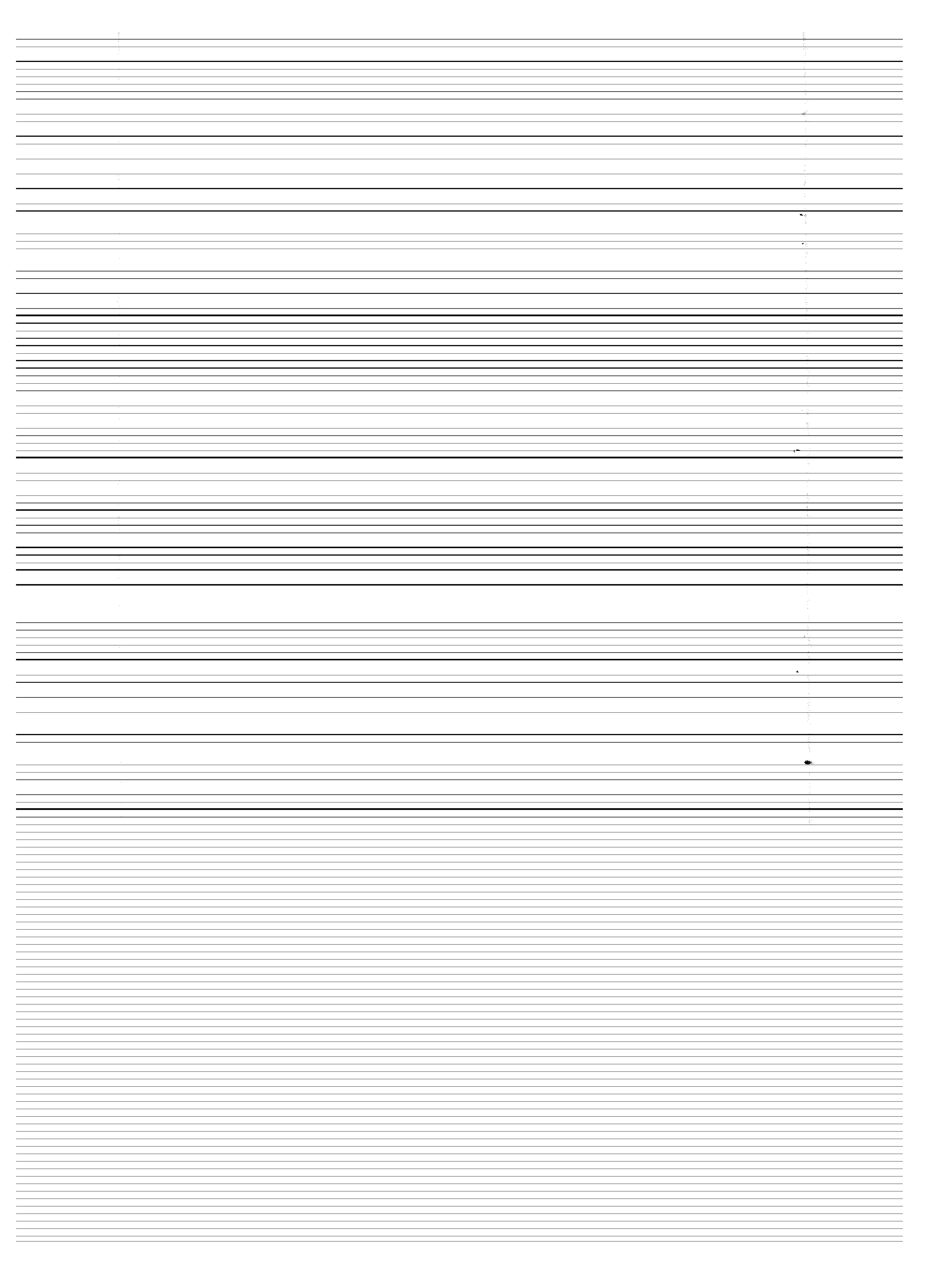
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PART 1

BACKGROUND OF THE STUDY



CHAPTER I

PLANNING PROBLEM

No society can surely be flourishing and happy, of which the far greater part of the members are poor and miserable.

Adam Smith, **"An Enquiry into the Nature and Causes of the Wealth of Nations"**, (1776).

Planning problem, according to this study, is the problem of economic underdevelopment. Naturally, every enquiry arises from some felt problem. Nationally and internationally, there is probably no problem which is more widely and bitterly felt than the problem in hand. It is a theoretical dilemma facing virtually all modern economists. At the same time, it is widely considered as the most formidable practical difficulty confronting today nearly all the policy-makers in the world. This is often and vividly expressed by saying that the economics of the problem of underdevelopment is still underdeveloped.[1]

(1) A.O. Hirschman, **The Strategy of Economic Development,** (New Haven: A Yale Paperbound, 1961), p. 29.

One of the main reasons for this serious situation is the multifarious complexities of the problem itself. These complexities, in turn, are mainly due to the circular nature of the elements of the problem. Each element is a cause and consequence at the same time. These interactions of the elements, both as causes and consequences, form an interrelated complex which makes the application of the cause-and-effect analysis to the problem extremely difficult, if not impossible.

In this connection, Professor W. Arthur Lewis writes: "So many factors are relevant ...... that it is easy to be lost unless one has a general perspective of the subject."(2) In attempting to achieve Lewis's perspective to furnish a base for this study, the aim of this chapter is essentially to answer these questions:

1 — What is the magnitude of the problem?;

2 — What are its basic characteristics, particularly those which are more relevant to India and Egypt,(3) the two countries of this study?; and

3 — What are the possible ways of tackling it?

These three questions are going to be dealt with in the following three sections, respectively.

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(2) W.A. Lewis, **Theory of Economic Growth**, (London: Unwin University Books, 1955), p. 5.

(3) India became the Indian Union after Independence and Partition in August 1947. Egypt became the United Arab Republic after the "Union" with Syria in February 1958, and it is still officially so designated in spite of the dissolution of that union in September 1961. However, in this study Egypt only means the U.A.R.; and India means the I.U.

I — THE MAGNITUDE OF THE PROBLEM

Considering the limitations and the inherent arbitrariness of any single definition, one may define the problem of economic underdevelopment as the problem of poverty, in terms of relative economic performance.[4] Thus, the label "underdeveloped" implies relative status. An underdeveloped country is one that is economically poor compared with other countries regarded as developed. It is a country which on the average affords its population an end product of consumption and material well-being inferior in quality to and less in quantity than that provided in developed countries. To designate a country as underdeveloped also implies that its present economic performance could be improved through better use and allocation of resources by methods which are already well known.

This relative economic poverty is approximately measured by a customary but still controversial criterion, namely, per capita real income.[5] Accordingly, an underdeveloped country is one which is characterized by low per capita real income in comparison with developed countries. On this definitional point a group of experts, appointed by the United Nations Secretary-General, asserts: "We have had some difficulty in interpreting the term underdeveloped country. We use it to mean countries in which per capita real income is low when compared with the per capita incomes of the United States of America, Canada, Australia, and Western Europe. In this sense, an adequate synonym would be 'poor country'."[6]

Admitting the conceptual and statistical difficulties in

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(4) For an excellent account on this, see H. Myint, "An Interpretation of Economic Backwardness", **Oxford Economic Papers,** Vol. VI, (June, 1954), pp. 132-63.

(5) See, e.g., S.H. Frankel, "Concepts of Income and Welfare in Advanced and Underdeveloped Societies with Special References to the Intercomparability of National Income Aggregates," **Income and Wealth,** Series III, (London: International Association for Research in Income and Wealth, 1953), pp. 156-68.

(6) U.N., **Measures for the Economic Development of Underdeveloped Countries,** (New York, 1951), p. 3.

quantitative comparisons, especially with regard to national income estimates, and bearing in mind the existence of wide differences in per capita incomes between individual countries within each group, the general picture of the relative states of economic development of various countries in the world can be grasped from Table I.1, below. The two groups of countries at either extreme of the per capita income scale (groups I and III) enjoy self-evident relative states of economic development. In contrast, the intermediate group of countries is evidently better off relative to the low-income group and less developed relative to the high-income group. So, we have rather arbitrarily called the countries of this intermediate group (group II) the "less developed" countries.

TABLE I.1: WORLD INCOME DISTRIBUTION IN 1949

Group of Countries	% Share of World Income	% Share of World Population	Per Capita Income $	Relative Income Per Capita (Group I = 100)
I — Developed or High-income Group				
United States, Canada, New Zealand, Western Europe, and Australia	67	18	915	100
II — Less developed or Middle-income Group				
Israel, Argentina, Uruguay, South Africa, and some countries in Eastern Europe — especially Soviet Russia	18	15	310	34
III — Underdeveloped or Low-income Group				
Most countries of South-eastern Europe, Latin America, Africa, and Asia	15	67	54	6

Notes: i — ($) = United States Dollars of 1949 purchasing power.
ii — Data are based on national income estimates for 70 countries which cover about two billion of world population and exclude about 400 million for whom no national income estimates were available.
iii — Countries and regions are arranged according to their per capita incomes.

Sources: R. Nurkse, **Problems of Capital Formation in Underdeveloped Countries,** (Oxford: Blackwell, 1953), pp. 63 64; Statistical Office of the United Nations, **National and Per Capita Income in Seventy Countries,** Statistical Papers, Series E, No. 1, (New York, Oct., 1950), p. 14; and S. Kuznets, "Quantitative Aspects of the Economic Growth of Nations', **Economic Development and Cultural Change,** Vol. V, (Oct., 1956), p. 17.

The above data need no further comment. While less than a fifth of the world's population had more than two thirds of the world's income, over two thirds of the world's population had only about a seventh of the world's income. Accordingly, per capita real income of the large underdeveloped group accounted for only about 6 per cent of that enjoyed by the relatively small developed group. This disparity is not just a matter of a single year. In fact, it characterizes the long-term income levels of various countries and groups.[7]

Such a comprehensive monetary index as income per capita, to use Professor Kuznets's phrase,[8] can be supplemented and indeed reinforced by other non-monetary measures of material well-being. Tables I-A-1 and I-A-2, in Appendix A, below, give data on some monetary and non-monetary indexes. The first table presents separately twelve indexes. The second table shows a composite non-monetary index,[9] together with a monetary series. From the data of these two tables, it is quite clear that the monetary and non-monetary sets of indexes are in general conformity with each other.[10] By and large, these data reveal the same hard facts about the differences among countries and groups of countries, as shown in Table I.1, above.

From the above data, the broad picture is apparently clear. While one group of countries rates relatively well on various indicators of material well-being, the other group rates quite poorly. This situation could be fairly accurately expressed in

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(7) See S. Kuznets, "Toward a Theory of Economic Growth," in R. Lekachman (ed.), **National Policy for Economic Welfare at Home and Abroad,** (New York : Doubleday, 1955), p. 27.

(8) S. Kuznets, "International Differences in Income Levels : Some Reflections on Their Causes," **Economic Development and Cultural Change,** Vol. II, (April, 1953).

(9) Being aware of the statistical impropriety of adding non-additive series, Professor M. Bennett has constructed this index to rank 31 countries according to their relative consumption levels. For details, see M.K. Bennett, "International Disparities in Consumption Levels," **The American Economic Review,** Vol. XLI, (Sept., 1951), pp. 632-49. For a brief account on the procedure employed in constructing this index, see note (iv) to Table I-A-2, in Appendix A, below.

(10) For some contrasts between the monetary and non-monetary indexes, see Kuznets, "International Differences ....", **Op. Cit.,** p. 4; and Bennett, **Op. Cit.,** pp. 643-45.

the ordinal ranking sense through per capita real income. Two points, by way of summing up, are thus worth mentioning: (1) Low per capita real income and underdevelopment tend to go together as do high per capita real income and development; and (2) the problem of economic underdevelopment is felt, acute and sizable.

II — THE CHARACTERISTICS OF THE PROBLEM

In view of the variety of differences among the individual underdeveloped countries, it is quite difficult to generalize about the problem. However, from the data presented in Section I above, it seems that these differences are by and large differences in degree rather than in substance. It is therefore possible to focus on some fundamental characteristics which are common to a large number of underdeveloped countries, in general, and more relevant to the two countries of this study, in particular. Naturally, when we come to discuss the problem in its Indian and Egyptian varieties, in Chapter III below, these characteristics are going to be interpreted in the light of the particular circumstances of each country, and appropriate modification of emphasis is going to be made according to each case.

Broadly speaking, an underdeveloped economy is widely considered as a low-level equilibrium system in which the equilibrium state possesses some degree of stability.[11] In a case of disturbance, the forces that tend to raise per capita real income set in motion forces which have the effect of depressing it. Though the net result might be a marginal positive change in per capita real income, the essence of this low-level equilibrium is that the depressing factors become more significant than the effects of

(11) This is probably due to the fact that some of the crucial variables have equilibrium values that possess at least stability **in the small**, to use Professor Samuelson's famous expression. However, precisely because of this kind of stability, one can find economists who speak of the "particular" disequilibria in underdeveloped economies. See, e.g., J. Tinbergen, **The Design of Development**, (Baltimore: Johns Hopkins Press, 1958), pp. 76-78.

various stimulants.[12] In other words, the stimulants that do occur usually cause a pattern of change which leads to an eventual return to the low-level equilibrium. This process is vividly described as the low-level equilibrium trap.[13]

This trap could be attributed to the particular conditions under which three basic factors operate in underdeveloped countries. These factors are: (1) factor supply; (2) factor use; and (3) factor environment. In any economy, factor supply means the relative availability of productive resources, namely, land, labour, capital, enterpreneurial organization, and the state of technology. Factor use is concerned with the question of how effectively these resources are utilized. Factor environment is essentially the psychological, social, cultural, and political atmosphere within which all economic activity is pursued.

(1) FACTOR SUPPLY

The relative availability of productive resources has two distinctive but related aspects, namely', the quantitative and the qualitative aspects. Given the conditions of the other two factors, factor use and factor environment, the low level of per capita real income may be due to the fact that one or more of the productive resources are relatively deficient in quantity and/or inferior in quality. To understand more fully the implications of this statement, let us briefly examine one by one the components of factor supply.[14]

i — Land

The supply conditions of land, as the known and economically useful natural resources, in underdeveloped countries are regarded

(12) See H. Leibenstein, **Economic Backwardness and Economic Growth,** (New York: Wiley, Science Editions, 1963), pp. 98-104.
(13) See R.R. Nelson, "A Theory of the Low-level Equilibrium Trap in Underdeveloped Countries," **The American Economic Review,** Vol. XLVI, (Dec., 1956), pp. 894-904.
(14) In theory and practice, it is quite difficult to distinguish the five components from each other, especially with regard to land, capital, and technology. However, it is analytically convenient to treat them individually.

by many economists as a rather unimportant cause for the low level of per capita real income in these countries.[15] Every existing country, they assert, is likely to have enough natural resources to enable it to escape from the low-level equilibrium trap. Economic development is therefore unlikely to be inhibited by an absolute lack of natural resources.[16] Their evidence is based on the historical cases of Switzerland, U.K., and Japan, as well as the present cases of underpopulated underdeveloped countries of Latin America, Africa, and the Middle East.

However, they conclude, nobody would deny the important place of natural resources in the process of economic development. But, it seems that these resources are not a limiting factor that arrests the process from taking place in underdeveloped countries. Of course, they finally qualify their argument, it is always better to have more and much varied natural resources than less and much less varied.[17]

By and large, one can accept the foregoing analysis as true in the sense that there must be other factors which are more responsible for arresting the development process from taking place in underdeveloped countries. However, it seems that the above argument has probably underestimated the role of natural resources in the present situation of these countries, for at least three reasons. Firstly, natural resources, in kind and quantity, are quite important at the early stages of development. Professor Schultz has suggested that the ratio of natural resources to the complex of all resources used by a country in the creation of its national income falls from about 20-25 per cent to a low level

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(15) See, e.g., E.M. Hoover, "The Conference on Natural Resources, Items," **Social Science Research Council,** Vol. 14, (June, 1960); C.P. Kindleberger, **Economic Development,** (New York : McGraw-Hill, 1958), pp. 17-34; and S. Kuznets, "Towward a Theory of Economic Growth," **Op. Cit.,** p. 36.

(16) Kindleberger, **Op. Cit.,** pp. 19-20; and Kuznets, "Toward a Theory of Economic Growth," **Op. Cit.,** p. 36.

(17) Kindleberger, **Op. Cit.,** p. 20 and p. 34.

of about 5 per cent, as its economy advances from lower to higher stages of economic development.[18]

Secondly, any potentiality or substitutability of natural resources would imply a host of assumptions as to the conditions of the other productive resources as well as the conditions of factor use and factor environment necessary to realize such potentiality or to effect such substitutability. These necessary conditions, as will be discussed in this Chapter below, may be virtually absent in underdeveloped countries. Thirdly, the pressure of population in most of these countries clearly indicates the relative importance of natural resources. Japan is always cited as an example of a relatively developed country with a relatively acute scarcity of natural resources. However, this very example could be considered as an evidence for the importance of natural resources and the seriousness of their deficiency. Japan would seem to have undergone every step in the process of development that is technically and operationally possible. But it is evidently unable to rise very far in the scale of real income per capita because of her low land/labour ratio. U.S.A. is an example in contrast.

So, one can safely say that land as a component of factor supply is more than a secondary factor in the process of economic development. Its deficiency and/or inferiority are certainly one of the causes of the low level of per capita real income in underdeveloped countries.

ii — Labour

Essentially, the case in underdeveloped countries is not "economic development with unlimited supplies of labour."[19] In fact, it is quite the reverse, namely, economic underdevelop-

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(18) T.W. Schultz, "A General View of Natural Resources in Economic Growth," in E.M. Hoover, "The Conference on Natural Resources," **Op. Cit.**

(19) This is the title of the well-known article by W.A. Lewis in **The Manchester School of Economic and Social Studies,** Vol. XXII, (May, 1954), pp. 139-91.

ment partly because of limited supplies of labour. But, how can densely populated countries also experience shortages of labour? Here, the problem is of size but much more of kind. Admittedly, most underdeveloped countries have plenty of people as a strong and reliable consuming power. But they have not yet enough labour as an effective productive resource. In comparison with developed countries, underdeveloped countries are in a seriously unfavourable position with respect to the labour problem.

Quantitatively, if there are two equal populations, one of a developed country and the other of an underdeveloped, normally the proportion of the effective labour force out of total population is likely to be higher in the former than in the latter. Qualitatively, if the two populations had identical proportions in the labour force, it is very likely that more people in the proportion of the underdeveloped country might be idle for several months each year and markedly less efficient when they are actually working. Of course, these two aspects of the labour problem are very much related. For example, if some people are often too ill to work, then one cannot count them among the effective labour force. Also, if the social system allows some physically able men to be completely idle, then it is meaningless to consider them as members of the labour force.

In general, labour productivity in underedeveloped countries is, for obvious reasons, markedly low relative to that in developed countries. It is as low in the former countries as to constitute a ratio of two to one up to five to one and in some cases probably ten to one of that of the latter.[20] This state directly affects the size of the labour force. If it takes in underdeveloped countries two workers to do a job that would be done by one in developed countries, then one could say that the effective size of the labour force has been cut by half. If it takes five men to

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(20) See G.M. Meier and R.E. Baldwin, **Economic Development,** (New York : Wiley, 1957), pp. 293-94; and R. Frost, **The Backward Economy,** (London : Longmans, 1961), p. 145.

do the job, then the effective size is cut by 80 per cent; and if it took ten men, then the cut would be 90 per cent.

Basically, the size of the labour force is quantitatively determined by the age and sex compositions of the population, mortality and fertility rates at various ages, degree of labour mobility, and factor environment. In contrast with developed countries, a much higher proportion of total population in underdeveloped countries is in the younger age groups. On average, about 40 per cent of the population in these countries is below 15 years of age as against only 25 per cent in developed countries. This means that the former countries have about 15 fewer persons per 100 inhabitants who are old enough to work and be productive than the latter. More aggravating still is the fact that a larger proportion of the age group "under 15" in underdeveloped countries is made up of children under 5 or under 10 years of age.[21]

The cause of this high proportion of young children stems from the particular stage of demographic evolution which is being experienced by these countries. This stage is characterized by very high fertility rates and a somewhat declining mortality rates.[22] However, the latter rates are still very high, particularly with respect to infant and juvenile rates, in comparison with those of developed countries. The downward effect of this high proportion of young children on the size of labour force is two-fold: first, by taking a larger share of the population, so reducing the size of labour force **per se**; and second, by diverting some of the working time of the existing labour force in rearing and training, with very small returns. Many of those born and reared through part of childhood never reach an age at which they become productive.

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(21) Statistical Office of the United Nations, **Demographic Yearbook, 1949-50,** (New York, 1950), pp. 15 and 104-27.

(22) For a summary of different demographic stages and various determinants of age structure, see U.N., **The Determinants and Consequences of Population Trends**, Population Studies, No. 17, (New York, 1953), pp. 44, 73-97 and 141.

However, those who do escape death in childhood and reach a productive age have on the average fewer productive years remaining to them. The expectation of life at 15, and for that matter at all other ages, is quite low in comparison with that in developed countries.[23] This further makes the economic costs of labour apparently higher and the size of labour force comparatively smaller in underdeveloped countries. Furthermore, the tendency in these countries to keep women out of the labour market also reduces the size of the effective labour force. For example, in the U.K. the number of women gainfully occupied is equal to about 47 per cent of the number of men, whereas the comparable figure for Egypt, where women's opportunities are relatively restricted, is only about 17 per cent.[24] In addition, the size of the effective labour force may qualitatively and seriously be reduced by other well-known social as well as geographical and occupational labour immobilities.[25]

In short, the conditions of labour resource, in kind and quantity, are quite serious in underdeveloped countries. Population growth can thus be literally associated with reductions in per capita real income. Not only is it poor additions to an already poor labour resource, but it also, and more serious, virtually eats away any potential surpluses available for capital formation. In effect, resources go to the formation of poor population, not capital.[26] The Malthusian theory is therefore quite relevant as an explanation of the present state of underdeveloped countries.[27]

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(23) See Statistical Office of the United Nations, **Demographic Yearbook, 1951,** (New York, 1951), pp. 526-39.

(24) W.A. Lewis, **Theory of Economic Growth, Op. Cit.,** pp. 331-32.

(25) See, e.g., Lewis, **Theory of Economic Growth, Op. Cit.,** pp. 11-12, 44-54, 109-10, 192-93 and 299-301; and Frost, **Op. Cit.,** pp. 141-47.

(26) For a detailed discussion on this point, see J.J. Spengler, "The Population Obstacle to Economic Betterment," **The American Economic Review Papers and Proceedings,** Vol. XLI, (May, 1951), pp. 343-54.

(27) For a critical analysis of this point, see E.F. Penrose, "Malthus and the Underdeveloped Areas," **The Economic Journal,** Vol. LXVII, (June, 1957), pp. 219-39.

iii — Capital

The relative importance of capital[28] as a determinant of the developmental stage of any country needs no emphasis. Its state in underdeveloped countries is partly responsible for their economic problem.

One of the main factors in the traditional model of this problem is the relative deficiency of capital.[29] In the relevant part of the model as far as capital is concerned, the low level of capital formation sharply restricts the rate of growth in real output. Allowing for population growth, the result is probably no increase, if not a decrease, in the already low per capita real income. Thus, this low level of capital formation virtually maintains, if not further lowers, the already low capital/labour ratio.

In spite of the lack of reliable data concerning capital, and the conceptual and statistical difficulties that beset its estimates and comparisons, the relative scarcity of this factor in underdeveloped countries is quite self-evident. Obvious examples of this state are the deficiencies of human capital and capital improvements of land. If one brings into the picture the case or cases of developed countries in these fields, it may well be, as Professor Kuznets suggests, that instead of a difference in net capital formation between 10 per cent in developed and say 3 per cent

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(28) Capital is defined as the stock of all forms of reproducible wealth that exists at any moment of time. These forms include not only the conventional items of productive structures (such as factory buildings, machinery and equipment, inventories of raw materials, goods-in-process, and finished goods at various stages in distribution; transport and communication facilities, and other social overhead capital; drainage and irrigation works; work animals and livestocks; etc.), but also human capital as well as capital improvements of land. For a detailed account on this definitional point, see J.W. Kenndrick, "Some Theoretical Aspects of Capital Measurement," **The American Economic Review,** Vol. LI, (May, 1961), p. 100; and O. Eckstein, "Capital Theory and Some Theoretical Problems in Development Planning," **The American Economic Review,** Vol. LI, (May, 1961), p. 92.

(29) For an excellent account on this point, see C. Wolf and S.C. Sufrin, **Capital Formation and Foreign Investment in Underdeveloped Areas,** (Syracuse University Press, 1958), pp. 11-17.

in underedeveloped countries, the true difference is more likely to be between 30 per cent or over and 3 per cent.[30]

The evidence available on the acute scarcity of the familiar types of capital, namely, productive structures in underdeveloped countries is quite convincing.[31] Even if certain allowances could be made for such omissions as nonmonetized investments, e.g., road building and rural housing, the problem still remains acute. In 1939, it has been estimated that real capital per worker in Asia and the Far East outside Japan was only 10 per cent of that in the United States.[32] In 1948, it has been estimated that in the relatively most developed British Colonies the national capital per head of population was not more than 10 per cent of that in the U.K.; and in Africa, it was less than 2 per cent.[33]

Perhaps even more serious is the qualitative aspect of capital in underdeveloped countries. The low levels of productivity of land and labour in these countries as indicators of poor quality of capital improvements of land and human capital need no elaboration. As for productive structures, their inferior quality is beyond any doubt. Apart from capital goods which usually pertain to the social, religious or ceremonial purposes and which have virtually nothing to do with economic productivity but are sheer waste of very scarce productive capacity, all other categories of productive structures are very poor in quality in comparison with those in developed countries. More serious still is the fact that capital in the former countries is extremely less diversified. In developed countries, capital serves economic activity in ways which have no real counterpart in underdeveloped countries. In the latter countries, therefore, not only is capital

(30) Kuznets, "Toward a Theory of Economic Growth," **Op. Cit.**, pp. 39-40.
(31) See, e.g., Table I-A-1 in Appendix A, below.
(32) U.N., Department of Economic Affairs, **Economic Survey of Asia and the Far East, 1949**, (New York, 1950), p. 296.
(33) Colonial Development Corporation, **Report for 1948**, (London: H.M.S.H., June, 1949), p. 6.

very scarce, but it also is primitive, less diversified, and even obsolete.

iv — Entrepreneurial Organization

In underdeveloped countries, the "organization-building ability", to use Harbison's words,(34) is quite poor. The quantity and quality of entrepreneurial organization are markedly unfavourable to these countries. Our above remarks on the poor quality of labour and the inferiority of human capital are, in effect, an evidence for the relative scarcity of entrepreneurship. This scarcity seems to be as acute as that of capital.

In a sense, this state of entrepreneurial organization in underdeveloped countries could be held responsible for the relative deficiency and the apparent inefficiency of other factors of production. Some economists specifically suggest that this factor constitutes the essential link required to bring available resources and existing investment opportunities together. They rightly argue that the lack of this factor in underdeveloped countries retards potential demand for productive resources, and hence directly but partly causes the low levels of productivity of these resources.(35) In turn, one of the chief causes, as will be discussed in this Chapter below, of the dearth of entrepreneurship is the unfavourable factor environment.

In sum, this state of entrepreneurial organization, though quite difficult to measure directly, is undoubtedly one of the major factors which are responsible for the low level of per capita real incomes in underdeveloped countries.

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(34) For the history of entrepreneurship and its role in economic development, see F.H. Harbison, "Entrepreneurial Organization As a Factor in Economic Development," **The Quarterly Journal of Economics**, Vol. LXX, (Aug., 1956), pp. 364-79.

(35) For an authoritative account on this, see A. Hirschman, **Op. Cit.**, pp. 1-28. See also F. Harbison, **Op. Cit.;** and C. Wolf and S. Sufrin, **Op. Cit.**, pp. 21-22.

v — Technology

It is quite obvious that with other productive resources as seriously unfavourable to underdeveloped countries as they appear to be from the above discussion, the state of technology in these countries cannot be otherwise. In fact, it is crude, backward, and inappropriate relative to the resource endowments of these countries.

In general, no production is possible without some amount of all productive resources. In principle, technical substitutability of these resources is possible.(36) Productive resource is a concept relative to a given state of technology. A change of this state may considerably ease the relative scarcity of a productive resource or resources. But given the state of technology, resource substitutability is technically limited.

In underdeveloped countries, this limitation is markedly acute for mainly two related reasons: 1) the crudity of technology in these countries; and 2) various market imperfections.(37) This state seriously restricted the technological choices available to these countries to the extent that they are using highly inappropriate techniques relative to their resource endowments. So, instead of using more labour-intensive processes, they are emulating capital-intensive techniques. One obvious consequence of this contradictory situation is the dualistic nature of the economic structure of most underdeveloped countries.(38) The inevitable

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(36) See R.S. Eckaus, "The Factor-proportions Problems in Underdeveloped Areas," **The American Economic Review**, Vol. XLV, (Sept., 1955), pp. 539-69.

(37) Such as factor immobility, price rigidity, ignorance of market conditions, lack of specialization, etc... See Eckaus, **Op. Cit.**,

(38) The typical structure of this kind consists of quite a large subsistence agricultural sector with appallingly low levels of techniques, productivity and income; and a small and infantile industrial sector. The latter sector is superior to the former in practically every aspect, but still quite inferior both in size and quality to its counterpart in developed countries. Theoretically, this dualistic structure consists of two sectors with different marginal efficiencies of identical factors of production. For an excellent account on this, see A.O. Hirschman, "Investment Policies and 'Dualism' in Underdeveloped Countries," **The American Economic Review**, Vol. XLVII, (Sept., 1957), pp. 550-70; Eckaus, **Op. Cit.**; and B. Higgins, "The 'Dualistic Theory' of Underdeveloped Areas," **Economic Development and Cultural Change**, Vol. IV, (Jan., 1956), pp. 99-115.

result therefore is less efficient use of productive resources, in general, and those which are relatively more scarce, in particular. This point will be further taken up in our examination of factor use, below.

Consequently, the limitation of technical substitutability of productive resources in underdeveloped countries could be held partially responsible for the low level of per capita real incomes in these countries.

(2) FACTOR USE

Given factor supply, real income per capita may also be low partly because underdeveloped countries do not use the productive resources they already have as effectively as they might. The five components of factor supply, as described above, could be made to yield appreciably larger outputs. Poor utilization of a resource or resources in these countries may take one or more of these possible forms: 1) unutilizations — not in economic use at all; 2) underutilization — used partially; and 3) misutilization — used but in the wrong activity or in the wrong proportion.

This state of resource utilization is described in the literature as the "structural disequilibrium at the factor level".[39] This disequilibrium may arise either because a single resource or resources receive different returns in different uses or because the price relationships among resources are out of line with factor supply. The first explanation assumes that available technology would permit full use of productive resources at some set of relative prices and finds the source of the three forms of poor utilization in various types of imperfections in the price system, in particular, and in factor environment, in general. The second suggests that there are limitations in the existing techno-

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(39) See R. Eckaus, Op. Cit.

logy or the structure of demand which lead to these forms of waste of productive resources.

Consequently, the production functions that are actually being used in underdeveloped countries are very much inferior ones. An underdeveloped economy is most likely producing at a lower point which is far within its possible production frontier. This means that without any change in factor supply, it is technologically possible for an underdeveloped country to increase its national and per capita real incomes through more efficient resource allocation. As it is, poor resource utilization is probably one of the basic characteristics of the problem of economic underdevelopment. Though reliable and direct evidence is quite scant in this field, it is not very difficult to ascertain the state of misallocation of resources in underdeveloped countries. Examples of the three forms of poor utilization of almost every productive resource could be drawn from almost any underdeveloped country.

With respect to **land**, one can easily find examples of unutilization, underutilization, and misutilization in practically every underdeveloped country. This is generally the case even after the pressure of population was felt and the commercial crops and money economy were introduced in most of these countries. Example of the first form is the so-called "cultivable wasteland" in many underdeveloped countries.[40] Example of the other two forms is the system of "shifting cultivation" in Africa which is destructive of foresty resources and wasteful of land.[41] Further examples of misutilization of land and other natural resources could be found in the Latin American agrarian structure and that of the Mediterranean region. In the former region, the pattern of land utilization is the reverse of that which market conditions and national resources require. The hillside land which is but suited for pasture and woodland is intensively cultivated for subsistence crops by "hoc culture" which destroys the top soil, while the valley floors which are more suited for

(40) United Nations Food and Agricultural Organization, **Yearbook of Food and Agricultural Statistics,** 1949.
(41) **U.N., Economic Survey of Africa Since 1950,** (New York, 1959), p. 50.

arable cultivation are used for grazing.[42] In the latter region, where water is generally scarce, it is used wastefully. It is estimated that throughout the region water used on gravity-irrigated land is around 25 per cent above the required amount.[43] Finally, examples of poor utilization of other natural resources, notably minerals and energy, could be found in almost every underdeveloped country.

Labour is the much-cited example in any discussion concerning the relative waste of resources in underdeveloped countries. Unemployed, underemployed, and misemployed labour is the hard fact of the economic and social life in these countries. Unemployment could be defined as redundant labour arising from resource and technological restraints and the structure of demand in these countries.[44] Underemployment may be defined as a situation in which the withdrawal of a certain quantity of the labour resource to other uses will not appreciably diminish the total output of the sector from which it is withdrawn. This is as much as to say that the marginal productivity of these units of labour in their original employment is very close to zero, if not zero. Misemployment could be described as a situation in which "the right man is not in the right job." Though these three varieties of poor utilization of labour are quite easy to observe in underdeveloped countries, they are extremely difficult to document simply because there is virtually no reliable data in this field. Many economists generally use the term "underemployment" in such a loose way as to cover more or less the three varieties and to be mainly limited to agriculture.[45] In this respect, in its final report on a conference on science and technology as recent as 1963, the United Nations says: "The underdeveloped countries are not only countries with high rates of

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(42) U.N., **Land Reform,** (New York, 1951), p. 27.
(43) United Nations Food and Agricultural Organization, **FAO Mediterranean Development Project,** (Rome, 1959), p. 78.
(44) See R. Eckaus, **Op. Cit.**
(45) Not to mention those who question the existence of such underutilized labour in agriculture — such as Professors Schultz, Viner, and Haberler.

unemployment. Reserves of idle manpower in the form of underemployment may represent as much as 50 per cent of the available rural manpower..."[46] In short, nobody could deny the fact that an enormous reservoir of manpower, embracing all economic activities, is not fully utilized in underdeveloped countries.

As for **capital**, one can do no better than to quote Professor Lewis on this: "No nation is so poor that it could not save 12 per cent of its national income if it wanted to; poverty has never prevented nations from launching upon wars, or from wasting their substances in other ways. Least of all can those nations plead poverty as an excuse for not saving, in which 40 per cent or so of the national income is squandered by the top 10 per cent of income receivers, living luxuriously on rents. In such countries productive investment is not small because there is no surplus; it is small because the surplus is used to maintain unproductive hords of retainers, and to build pyramids, temples and other durable consumer goods, instead of to create productive capital."[47] Capital may be also misutilized for a variety of reasons ranging from inferior maintenance service to poor or even wrong investment criteria possibly because of defective advance project-planning.[48] Examples of unutilized productive capacity range from hoardings on the one hand and virtually idle machines, for various obvious reasons, on the other. As for underutilized capital, the well-known example is the existence of large excess capacity in industry. In agriculture, excessive fragmentation of land and parcelization of holdings in most underdeveloped countries tend to minimize the use of capital facilities whether they are public or private. As Professor Nurkse suggested, the plots are quite small and widely scattered, and so there are more shovels, wheelbarrows, carts, draught animals,

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(46) U.N., **Report on the United Nations Conference on the Application of Science and Technology for the Benefit of the Less Developed Areas, Vol. VII, Science and Planning,** (New York, 1963), p. 80.
(47) W.A. Lewis, **Theory of Economic Growth, Op. Cit.,** p. 236.
(48) A.O. Hirschman, **The Strategy of Economic Development, Op. Cit.,** p. 136.

etc... than would be required if farms could be consolidated.[49] Thus, the general picture is that a great deal of such a scarce resource as capital is misused by countries too poor to afford anything but the most economic uses of it.

The relative utilization of **entrepreneurial organization** in underdeveloped countries is no exception. In general, this crucial factor is wasted in practically every underdeveloped country. The "flight" of the Syrians, the Lebanese, the Indians, and the Chinese to work in other countries; and the so-called "intellectual unemployment" are obvious cases in point. Examples of mis-utilized entrepreneurship are often found in distribution, real estate speculation, money lending and government employment. Examples of underutilized entrepreneurship range from frustrated entrepreneurs who are prohibited, by various factors, from using their abilities in full, to the preference of the "within-the-family" business with stagnation rather than expansion that is bought at the cost of partial surrender of control.[50] The three varieties of poor utilization of this resource could be clearly found in the irrational organization of agricultural production. The prevailing systems of land tenure in most underdeveloped countries[51] have direct and depressing effects on the incentives of the rural population for higher productivity. Basically, most of the existing arrangements of land tenure are characterized by a **latifundia** system of landownership and a **minifundia** system of land use, with unfavourable landlord-tenant relationships. The common factor of such relationships is exorbitantly high rents, insecurity of land occupancy, and permanent indebtedness, with neither the landlord nor the tenant having any interest in maintaining soil resources. In these circumstances, the tenant's incentive for higher output and more efficient management is very weak as

(49) See R. Nurkse, **Problems of Capital Formation in Underdeveloped Countries, Op. Cit.,** p. 46.
(50) See A. Hirschman, **The Strategy of Economic Development, Op. Cit.,** p. 136; and C. Wolf and S. Sufrin, **Op. Cit.,** p. 23.
(51) For a detailed account on this point, see, e.g., U.N., **Land Reform, Op. cit.**

the larger share of the increase will inevitably go to the landlord or the moneylender.

Technology is similarly wasted in underdeveloped countries, mainly because of the poor utilization of entrepreneurial abilities. It is an almost untapped resource. On the one hand, the applied technology is markedly unsuitable and quite backward. On the other, a rich and varied scientific and technological knowledge at the disposal of most underdeveloped countries is waiting for adaptation to the practical needs of their economies.[52] There are better organization of production and more suitable technology which have been applied in more or less similar circumstances. These technological practices are quite feasible and within the limits of factor supply in almost every underdeveloped country.

All in all, the general picture of factor use could be summed up as follows. Under a closer examination, to use one of the IBRD developmental missions' words,[53] any underdeveloped country is found to have the raw materials, manpower, capital, entrepreneurial organization, technology and markets for a greater volume of economic activity than exists today.

(3) FACTOR ENVIRONMENT

The low level of per capita real income in underdeveloped countries is not only caused by the conditions of factor supply and factor use, discussed above, but also by factor environment. This factor is probably the fundamental underlying force which affects virtually all the above-mentioned elements, and hence the whole fabric of economic life.[54]

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(52) See U.N., **Report on the United Nations Conference on the Application of Science and Technology...**, Vol. VII, **Op. Cit.**, pp. 103-20.

(53) International Bank for Reconstruction and Development, **The Economic Development of Nigeria**, (Baltimore, 1955), p. 50.

(54) Of course, this is not a one way relationship. Factor environment is in turn affected by the economic elements. In fact, economic poverty makes itself felt in the human mind, action and relations. So, this is one of the basic circular causation of the problem of economic underdevelopment.

Essentially, this factor includes a wide variety of psychological, social, political and cultural values and institutions. In any society, factor environment therefore consists of two elements, namely, the values, and the institutions of that society. The first element is the range of principles which govern social relationships. The second is these relationships themselves which prescribe the way of life for the people and determine the motivations and behaviour patterns to which they will respond. The first element may be called the social system of the society, and the second, the social structure of that society.

The main reasons of the unfavourable factor environment in underdeveloped countries can be traced back to the basic characteristics of the social systems and structures of these countries. These commonly comprise the following:[55]

1 — A status system in which position tends to be ascribed rather than achieved, and correspondingly in which mobility is relatively low. In such a society, social organization evolves around kinship and the immediate community. People are evaluated not according to what they can do but according to their position in a type of social classification.

2 — The existence of values about the social and moral significance of work such that occupations tend to be status linked on the one hand and restricted in terms of social categories on the other. These values generally minimize the importance of economic incentives, inde-

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(55) This list is mainly based on: Unesco, **Social Prerequisites to Economic Growth,** Report of an Expert Working Group, (Paris: Unesco, 1964), pp. 1-27, particularly pp. 5-6. See also J. Ahumada, "Hypothesis for the Diagnosis of a situation of Social Change: The case of Venezuela," **International Social Science Journal,** Vol. XVI, (1964), p. 193; E.E. Hagen, "A Framework for Analysing Economic and Political Change," in **Development of the Emerging Countries,** (The Brookings Institute, 1962), pp. 1-38; and C. Kindleberger, **Economic Development, Op. Cit.,** pp. 56-75.

pendence and rational calculation. In general, social prestige, tends to have an inverse association with work.

3 — A social structure in which the limits of the obligations of people to one another are vague, rather than specific and contractual.

4 — The existence of a system of distribution which is regulated by traditional claims. In some cases, the majority of manual workers received incomes not greatly above minimum subsistence level. In other cases, distribution is much more egalitarian. But in either case, rewards were group-focused rather than individually oriented.

5 — The existence side by side with a central authority of strongly marked sectors of the community, each with its own set of loyalities and solidarities.

6 — The state of rising expectations according to which many of the economic, social and political problems in these countries arise from a faster rate of expansion of expectations than of achievements.

7 — The existence of a "cultural lag" which indicates that many institutions have outlived their usefulness, but have a hold on the culture and are difficult to change or modify. This applies not only to such matters as corruption or squeeze, land tenure arrangements, religious practices, etc., but also to the habitual patterns of economic production, distribution and consumption.

8 — The existence of a "cultural lead" which occurs when economic, social, political and cultural institutions are borrowed from a more developed country and grafted onto a society which they do not fit.

One can easily expand this list. But the more one adds to it, the more overlapping the characteristics will be. However, it seems that the point is quite clear. An environment like this could not possibly be helpful for more efficient use of available and potential productive resources of any country, and hence could not be conducive or even neutral to economic development. Underdeveloped countries therefore are as they are partially because of the state of their factor environment.

III — POSSIBLE WAYS OF TACKLING THE PROBLEM

Among the foregoing economic and social elements of the problem there are very complicated circular relationships. As mentioned at the beginning of this Chapter, each element is simultaneously a cause and effect for more than one other element. In effect, all of these variables form a whole of a very interrelated complex. Basically, because of this process of circular causation, the **status quo** of an underdeveloped economy tends to perpetuate itself. For this situation, the term "vicious circle" is commonly used in the literature.

But if the circles involved are truly vicious, then there will be no possibility of seeing a way out. However, the evidence available on the development activities of many countries refutes this proposition. For if the "viciousness' of these circles is true and complete, this leaves the economic achievements of developed countries and the relative betterment of some underdeveloped countries without explanation. Thus, one may say that the viciousness of the circles is apparently viciousness **in the small.** Furthermore, some circles, as Professor Hirschman rightly suggested, are more vicious than others.[56] This state therefore gives an underdeveloped country a possibility to break these circles, and hence to escape from "the low level equilibrium trap."

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(56) See A. Hirschman, **The Strategy of Economic Development, Op. Cit.,** p. 11.

How can this be done? This is a very difficult question to answer. However, the aim of the following remarks is to attempt to provide a rough and general skeleton of an answer by sketching the possible ways of tackling the problem of economic underdevelopment. To begin with, the re-presentation of the elements of the problem gives us a good indication of what is needed. Trying to increase factor supply, to improve factor use, and to change the traditionally bounded nature of factor environment are the basic ways of action. In this process, the dualistic nature of the economy must be directly attacked by attempting to increase the degree of inter-sectoral, inter-regional and international interdependences. These attempts must be based on the discovery of the vicious circles which are the basic causes of others, and the determination of how these circles can be broken into so as to convert them into feedback mechanisms that might then induce sustained development. Obviously, these ways of action are very general, overlapping and vague. However, their arrangements according to a priority system, timing and operational specifications heavily depend on what we have got by way of empirical and theoretical evidence in this field.

Therefore, seeking to shed more light on this question, one has two conventional routes which may be considered, namely, the history of economic development of nations, and the history of 'economic development' thought. Both of them are, of course, interrelated, serving each other, and quite complementary. The first route, however, is not of great help. The underdeveloped countries of today are faced by three more or less acute choices which are based on three distinctive developmental experiences. These are the spontaneous and free enterprise economic development of the West, the induced, imitating and semi-enforced economic development of Japan; and the forced, and ideologically and totally planned economic development of the U.S.S.R.

Development of the nature of that experienced by the West appears to be far too slow and to require many "strategic" resources. Notably among them are favourable factor environ-

ment, in general, and large middle class, in particular. Also, there were capital, technological knowledge and vast markets.[57] These resources are not available in the same favourable magnitude and quality to the underdeveloped countries. Japan's development experience, while speedier than the classical English "gradualistic" approach and animated by a nationalist spirit in many respects similar to that prevailing at present in many underdeveloped countries, used methods of exploitation of the low-income groups that are widely rejected today. Furthermore, it had an energetic group of "Samurai-bureaucrats" which is rarely found in the underdeveloped countries.[58] The third major experience is the great speed of development in the U.S.S.R. Though impressive and enticing to the underdeveloped countries, it has many negative features which stem from the heavy social costs of establishing a totalitarian pattern of economy and society. For underdeveloped countries, this pattern is socially costly, politically dangerous, administratively extremely difficult and economically arguable — especially with respect to agriculture which is the major sector in these countries.[59]

These three experiences have many useful lessons to teach underdeveloped countries. But, in fact, no one of them can be copied in its entirety. None of them appears completely relevant to the conditions and aspirations of underdeveloped countries. Accordingly, the choice must not be among the wholes, but from some items within these three wholes, i.e., some eclectic way of action which is applicable and adaptable to the particular circumstances confronting individual underdeveloped countries. Thus, according to this route, a full and clear-cut answer to our enquiry is not so easy to find. The chosen items from one or more of these three experiences will entirely depend on the social, economic and political conditoins and circumstances of each country.

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(57) See, e.g., T.S. Ashton, **The Industrial Revolution,** (London, 1948).
(58) See, e.g., W.W. Lockwood, **The Economic Development of Japan: Growth and Structural Change, 1869-1938,** (Princeton University Press, 1954).
(59) See, e.g., A. Nove, **The Soviet Economy,** (London: Allen and Unwin, 1961).

Of course, the choice of the system is important, but how it does work for a self-sustained development is a more important operational question.

Trying the second route, one finds two major schools of thought. Chronologically, the first consists of economists from Adam Smith to Harrod-Domar-Hansen triad. The second comprises the development economists. The first group offers little help in the sense that its analyses and models were basically concentrated on problems inherent in the Western type of a developed economy, or factors which work for its destruction — the Marxist version. Nevertheless, the economists of this group stressed various important elements in the process of economic development, which are quite relevant to the present situation of most underdeveloped countries.

From the classical economists, in particular Malthus and Ricardo, one gets due emphases on two important elements, namely, population growth and the limitations on natural resources, but not very much more except a pessimistic conclusion of the possibility of persistent under-development in the sense that the "natural progress" of a society is in the direction of a "stationary" state where the great mass of the population will be living at a "minimum subsistence" level. [60] Their model is frequently called, in the literature. "the gradualistic model of growth and stagnation." With respect to the Marxist system, the underdeveloped countries have no choice but to go, according to its "stages," through the capitalist phase to temporarily benefit from its structure and technology and eventually to be destroyed by its "class struggle." However, one finds in this

(60) Admittedly, this is an over-simplification of this major contribution to economics. For full discussion, see R.T. Malthus, **An Essay on Population,** modern ed., (London : Dent, 1933), and his, **Principles of Political Economy, considered with a view to their Practical Application,** (London, 1820); and David Ricardo, **Principles of Political Economy and Taxation,** 3rd ed., (London, 1821), and his, **Notes on Malthus's Principles of Political Economy,** Sraffa edition, (Cambridge, England, 1951). For a thorough and authoritative treatment of these works, see J.A. Schumpeter, **History of Economic Analysis,** (New York : Oxford University Press, 1954), Part II, Chapter 5, and Part III, Chapter 4.

system two important ideas which may help underdeveloped countries, namely, some sort of change in the control, not necessarily ownership, of the productive resources of the economy, and the crucial role of technology in the process of development. (61) The Marxist model is well-known as "the 'stages' model of growth and collapse."

From the neo-classicals, the important thing for underdeveloped countries to learn is the idea of reallocation of resources for higher production. The economists of this sub-group were not very much concerned with problems of development as with "optimum allocation of existing resources." (62) From Schumpeter, one gets the essential role of entrepreneurship. (63) From Keynes, one gets, or rather borrows for the underdeveloped countries, the important role of fiscal policies, in general, and the need for a positive governmental action, in particular. (64) Finally, the post-Keynesian economists stress the importance of some of the above-mentioned elements together with capital. This is particularly so in Harrod-Domar's type of analysis. (65) Hansen goes further to warn the developed countries of inflationary pressures and secular stagnation and suggests more public policies to counter these tendencies. (66) This, again, is an implicit suggestion for underdeveloped countries.

So, from the above remarks, it is clear that we have not got very much from this group in the way of providing the answer we are seeking. Nevertheless, the economists of this group provided us with many useful insights as well as a res-

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(61) See J. Schumpeter, **Op. Cit.**, Part III, Chapter 1.

(62) See, e.g., Alfred Marshall, **Principles of Economics**, 8th ed., (London : Macmillan, 1922); and Schumpeter, **Op. Cit.**, Part IV, Chapters 5, 6 and 7.

(63) See J.A. Schumpeter, **The Theory of Economic Development**, (Cambridge : Harvard University Press, 1951).

(64) See J.M. Keynes, **The General Theory of Employment, Interest and Money**, (London : Macmillan, 1936).

(65) See R.F. Harrod, **Towards a Dynamic Economics**, (London, 1948); and Evsey Domar, **Essays in the Theory of Economic Growth**, (New York : Oxford University Press, 1957).

(66) A. Hansen, **Full Recovery or stagnation**, (New York, 1938), and his, **Fiscal Policy and Business Cycles**, (New York, 1941).

pectable methodology of working on the problem. However, more operational issues and practical proposals may be found with the second group.

The economists of this group, the development economists, begin by rejecting the applicability of the Western development model to the economic situation of underdeveloped countries. [67] However, they are still using its reasoning and methodology, and referring to its variables which are relevant to the problem of underdevelopment. Aware of the interdependence between different sectors of the economy, they start debating on operational issues. Accepting development as a dictum, they debate primarily on whether to develop industry or agriculture. Then, the debate widens to the still-debated issue, namely, balanced v. unbalanced development. [68] However, when it comes to action these fine distinctions gradually disappear through time under practical necessities and various sorts of pressures. Thus, one may say that because of the limited resources available and the will to "catch up" the developed countries, the development process is most likely going to take a middle course among the sharply defined choices like that concerning industrial and agricultural developments. Once started and continued for some time, the development which has been thought to be unbalanced is in fact balanced. The real question is therefore that of "getting started." In other words, what is the fundamental action needed to make these societies move from their state of chronic underdevelopment to a sustained state along the developmental path ? In essence, this is the question which this group of economists sets itself to answer.

Here, one is faced with a variety of theories : A's "industrial revolution," B's "agricultural revolution," C's "big push," D's

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(67) See, e.g., W.B. Reddaway, "The Economics of Underdeveloped Countries," **The Economic Journal,** Vol. LXXIII, (March, 1963), pp. 1-13.

(68) On balanced development argument, see, e.g., R. Nurkse, **Problems of Capital Formation in Underdeveloped Countries, Op. Cit.;** and on unbalanced development argument, see, e.g., A. Hirschman, **The Strategy of Economic Development Op. Cit.**

"critical minimum effort," E's "take-off," F's "breakthrough," G's "great leap forward," and H's something else. [69] All of them, for somewhat different emphases, stem from a basic idea, namely, that a big action is required. Unless the development effort is large enough to overcome the depressing factors, the underdeveloped country will never "get started." Here, come the vital policy questions which are confronting practically every underdeveloped country, namely, who will be able to carry on this big task, and how ? These two questions are the subject-matter of the next Chapter, Chapter II.

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(69) For details on the 'Big Push Theory," see P.N. Rosenstein-Rodan, "Problems of Industrialization of Eastern and South-Eastern Europe," **The Economic Journal,** Vol. LIII, (June-Sept., 1943), pp. 202-11; on the "Critical Minimum Effort Theory," see H. Leibenstein, **Economic Backwardness and Economic Growth, Op. Cit.;** and on the "Take-off Theory," see W.W. Rostow, "The Take-off into Self-sustained Growth," **The Economic Journal,** Vol. LXVI, (March, 1956), pp. 25-48.

CHAPTER II

PLANNING PROCESS

The man of system... seems to imagine that he can arrange the different members of a great society with as much ease as the hand arranges the different pieces upon a chess-board. He does not consider that the pieces upon the chess-board have no other principle of motion besides that which the hand impresses upon them; but that, in the great chess-board of human society, every single piece has a principle of motion of its own, altogether different from that which the legislature might choose to impress upon it.
Adam Smith, **The Theory of Moral Sentiments,** (1759).

It is by now common knowledge that for an underdeveloped country to benefit from the "big action" required to get it started along the developmental path is to presuppose a considerable direction of this action. This direction, in turn, rests in two basic ideas, namely, the role of government as an entrepreneur and the role of planning as a tool of policy. It is virtually impossible for such action (which calls for a dramatic structural changes in the economy as well as in the society) to take place of itself without some governmental planning. In fact, it is widely accepted that some kind of central economic planning is "a must" for taking this action. Therefore, one can safely say that some kind of governmental planning is essential to the process of economic development. It is, in effect, much

more of a pressing practical necessity than a logical free choice.

But planning is still a vague notion and so is the role of government in the whole process. Thus, the aim of this chapter is mainly to try to further clarify such basic concepts from the view-point of the underdeveloped countries. [1] Accordingly, Section I deals with 'planning as a tool of policy.' Section II deals with 'planning procedure.' A third section is devoted to a brief description of the nature of the comparative approach, with special reference to this study. In fact, this section is an annexe to the chapter rather than an integrated part of it. However, as it deals like the whole chapter with a methodological point, it is thought more convenient, solely from the point of view of the exposition, to leave it as it is.

I — PLANNING AS A TOOL OF POLICY

Obviously no one is going to defend unqualified Laissez-faire and obviously no one is going to suggest completely centralized governmental planning and control. [2] On the first extreme, Professor Thomas Wilson writes, "Complete Laissez-faire has few supporters and we need not waste time in flogging a dead horse." [3] On the second extreme, Professor Alec Nove writes, "...the situation appears to call for an all-knowing and all-seeing Planner, whose brain takes decisions in full awareness of all the relevant alternatives and of all consequences of his acts. However, such a Planner can not exist, outside the imagination of model-builders or of over-simplifying writers of textbooks." [4] It is, as Professor Nove suggested, a totalitarian

(1) Throughout this chapter, as in the previous one, generalizations will be ventured which, it is believed, apply to most, if not all, underdeveloped countries. Needless to say, due emphases and qualifications will be made when we come to discuss the Indian and the Egyptian experiences.

(2) See T. Wilson, "Prospects and Possibilities of Planning," in **Planning,** papers read at Business Economists' Conference, Oxford, April, 1962, (London: The Business Economists Group, 1962), p. 34. See, also, his introduction to **Essays in the Economics of Socialism and Capitalism,** edited by R.L. Smyth, (London: The British Association for the Advancement of Science, 1964), pp. 9-19.

(3) T. Wilson, **Planning and Growth,** (London: Macmillan, 1964), p. 4.

(4) A. Nove, **The Soviet Economy, Op. Cit., p. 61.**

myth which consists in the belief that "everyone does what he is told, and that everyone can be told exactly what to do." [5]

The real issue therefore is not complete Laissez-faire v. complete planning. It is rather decentralized planning v. centralized planning. Here, the problem of choice is further reduced to a practical problem of finding a "proper" combination of these two extremes. This practical problem is still far from being solved, partly because of its complexities and partly because of some ideological dogmas. Accordingly, the two major economic systems in the world are still suffering from various sorts of defects. This has been vividly illustrated by Professor E. Devons who said that the Soviet planning has the combination of the macro-order with the micro-confusion ; and the West has the contrary : micro-order and macro-confusion. [6]

However, there is a substantial evidence on reverse trends in both systems towards eliminating these confusions, and hence towards finding more "proper" types of planning. On the one hand, the East is gradually moving towards "an increasing degree" of decentralized decision-making within its centralized framework of action (centralized planning). Important elements of this movement are the so-called "Libermanism," on the theoretical side, and "Khruschevism," on the applied side. [7] On the other hand, the West is gradually moving towards "an increasing degree" of centralized decision-making within its decentralized economic policy (decentralized planning). Important features of this movement are the Keynesian revolution, on the theoretical side, and the "Monnet" revolution, [8] on the empirical side.

(5) A. Nove, **Op. Cit.**, p. 18.
(6) In a talk on the BBC Third Programme, cited in A. Nove, **Was Stalin Really Necessary?**, (London : Allen and Unwin, 1964), pp. 135-36.
(7) The first element is essentially based on the introduction of the "Profit Motive" in the system, particularly on the production-unit level. The second is considered in the sense of more decentralization. For an authoritative account on these two points, see A. Nove, **The Soviet Economy, Op. Cit.**, and **Was Stalin Really Necessary?, Op. Cit.**
(8) See, e.g., M. Maclennan, **French Planning : Some Lessons for Britain**, P.E.P., (London, 1963).

But the crucial question of how much this "increasing degree" must be in order to help each system to make the necessary adjustments and to eliminate the existing defects is still mainly unanswered. In fact, it is virtually unanswerable. So, one adds the last resort in ecoonmic analysis : "it all depends" on the particular circumstances of each country. Basically, it is determined by the possibilities and limitations inherent in the economic, social, political and cultural characteristics of each case study. Unavoidably, this sweeping but realistic generalization is widely open to the different ideological considerations to make their impact on economic policy. But, this, I am afraid, is the very fact of the situation in the developed countries.

Accordingly, the position of the underdeveloped countries with respect to this international dilemma is this. Basically, these countries have no ready-made solutions to their tools-of-economic policy problem. There is no such thing as the "proper" type of planning, which they can copy and use for the "big action" required for their economic development. This situation may be a blessing in disguise, as it gives these countries at least the clarity of the basic judgments, namely, planning as such is a good thing, but excessive centralized planning as well as excessive decentralized planning certainly are bad things. (9) Furthermore, it gives each underdeveloped country the opportunity as well as the freedom to work out its own course between the two extremes of governmental planning, according to its own circumstances and without unnecessarily dogmatic constraints. (10) Therefore, the approach to planning in these countries is by and large a "pragmatic" approach which basically stems from the necessity for and the urgency of tackling the

(9) Admittedly, these are vague generalizations. However, it is virtually impossible to remove this vagueness, as these questions are in an area where generalizations cease to operate and the particulars of each case really dominate.

(10) This course is most likely to be eclectic in character, according to which almost all the questions of policy will not be of the "either/or" variety. The emphasis with respect to almost any policy contrast (such as : private sector v. public sector) will be on the complementary aspect rather than on the competitive one

problem of economic underdevelopment. [11]

To pass successfully this practicability test, this approach should be based on the two sets of economic criteria, namely, efficiency criteria and value criteria. The first set of criteria is those that help the decision-making authority to decide what are the most efficient ways technically, economically and practically for the society to get wherever it is it wants to go. The second set consists of those which are concerned with how to make choices among the various alternatives which are technically, economically and practically feasible. Both sets are intimately interrelated, since where one wants to go will depend greatly on how practically feasible it is to get there. [12]

To have the two sets of criteria workable in an efficient operational way is to presuppose an important position of price-mechanism in an over-all structure of a planning-mechanism. This is so simply because neither of the two mechanisms alone, or with minor role for the other, can achieve an effective combination of the two sets (especially if the process entails structural changes like the one in hand). In this process, price-mechanism will not be adequate as a device for the two sets, mainly because of the existence of a number of interdependencies between different sectors of the economy, referred to in the literature as external economies and diseconomies. [13] With planning alone, or with a minor role for price-mechanism, the situation may be worse. With almost everything decided in the

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(11) Naturally, this approach corresponds to the normal course of relations between theory and practice. On this point Professor G. Myrdal, speaking of the logical crux of all science, said, "As the theory is merely a hypothesis, the criterion of its truth can never be anything else than the pragmatic one of its usefulness in bringing our observations of facts into a meaningful and non-contradictory system of knowledge..." See his, **Economic Theory and Underdeveloped Regions,** (London : Duckworth, 1957), p. 161.

(12) For a detailed and excellent account on this point, see M.F. Millikan, "Criteria for Decision-Making in Economic Planning," paper read at **the United Nations Conference on the Application of Science and Technology for the Benefit of the Less Developed Areas,** (referred to onwards as **UNCAST**), **Paper No. E/Conf. 39/H/87,** (Nov., 1962), particularly pp. 1-5.

(13) See, e.g., P.N. Rosenstein-Rodan, "Problems of Industrialization...", **Op. Cit.**

centre, the inevitable outcome will be neglected value criteria and poor efficiency criteria. It is the sort of planning for which Jasny, in describing the Soviet experience in the early thirties, coined the term "Bacchanalian planning," where, I quote, "Dictatorship, which greatly facilitates planning, seems to breed only poor planning." (14)

Another important point in this approach to planning is to find a "proper" relation between the public and the private sectors. In general, the public sector has an increasingly important role to play, together with a healthy, guided but probably restricted private sector during the initial stages of the development process. But, at the end of these initial stages (the length of which will largely depend on what has been achieved since the beginning of the process) the magnitude of the relative shares in the process should be reversed in favour of the private sector. By and large, the continuity of planning as a tool of policy would not, I suppose, be affected, but the decision-making pattern would probably relax more in favour of the decentralized type. This may appear to be sheer speculations. Be as it may, one can not, however, specify these policy issues on a priori grounds. Again, it all depends on the prevailing circumstances in each individual case.

To be sure, planning in underdeveloped countries is in fact a highly experimental process in the state of the art and as regards the circumstances under which it is supposed to operate. All sorts of difficulties and constraints stem from the fact of attempting comprehensive planning against the background of underdevelopment, the characteristics of which have been analysed in Chapter I above, and roughly correspond to K. Hansen's brilliant description of a developmnet plan. He describes it as "...a series of successive approximations of a complex, complementary and interacting character ; based upon imprecise

(14) N. Jasny, **Essays on the Soviet Economy,** (New York: Praeger, (1962), pp. 162 and 165. See, also, A. Nove, **Was Stalin Really Necessary?, Op. Cit.,** p. 57, and, **The Soviet Economy, Op. Cit.,** p. 119.

economic and social data ; predicated upon often untested socio-political assumptions, hypotheses, and aspirations ; designed largely by economists but determined ultimately by politicians ; sought to be financed by funds uncommitted by prospective external lenders and by domestic revenues previously non-existent or uncollectible ; implemented by administrators, entrepreneurs and engineers in short supply and often still untrained ; effectuated in institutions requiring reform or not yet founded,..." (15)

There are therefore possible and serious dangers to which any underdeveloped country may be exposed during its planning experience. Once planning is initiated, regardless of its extent, the limitations on what can be achieved soon become apparent. For one thing, the range of choice open to the planner may be drastically reduced by "hand-me-down" projects which are already under way, or for which commitments have been made. The legacy of institutions and personnel is perhaps even harder to reject. The problem of political interference may become acute. There is also pressure to include social gains in the plan which usually precede the achievement of a high rate of growth.

There may be pressures to set unrealistic targets, e.g., to promise rates of growth which could never, even in the most favourable of circumstances, be achieved. Of course, a case can be made for aiming high — the Russians have made much of this technique. It is argued that even if the targets can not be reached, people will work harder and achieve more than they would without them. The real danger is that the unattainability of the targets will soon become evident, and, by emphasizing the incompetence and impotence of the government, lead to discouragement, dissidence and frustration. More important, perhaps, an insistence on high targets that can not be achieved distorts the whole framework of the plan. It may lead to serious

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(15) K.R. Hansen, "Planning As a Continuing Process," paper read at **UNCAST, Paper No. E/Conf. 39/H/68,** (Nov., 1962), pp. 1-2.

maladjustments in the rates of growth of different sectors, to excessive use of foreign exchange and eventually to exchange controls, to excess capacity in heavy industries, and to neglect of basic sectors such as agriculture. [16]

In discussing "economic nationalism" as a model in new and developing States, Professor H. Johnson rightly argues [17] that nationalism appears, to the economist, on the one hand as a driving force responsible for the urge of underdeveloped countries to accelerate their economic development by economic planning; and on the other hand as the major political influence responsible for the fact that many features of the policies, concepts, and methods of economic development planning in such countries either do not make 'economic sense', or else would make 'economic sense' only in certain specific and rather exceptional economic circumstances, the actual presence of which no one has felt it necessary to establish by empirical economic research. On the first point, the relevant economic analysis is quite elaborate. It runs in terms of divergencies between the private and the social costs of or returns from various kinds of investment and includes such possibilities as rationalizing the entrepreneurial and manpower forces and so obtaining social benefits that private competition would not produce if left to itself. It also stresses some familiar arguments such as those of the infant industry, cost reductions through economies of scale, the principle of comparative advantage, etc. [18]

On the second point, there are various dangerous tendencies. The first is the tendency towards over-emphasizing industrialization, despite the fact that many economists, looking either

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(16) See J.H. Power, "Industrialisation in Pakistan: A Case Study of Frustrated Take-Off," **The Pakistan Development Review,** Vol. III, (Summer, 1963), pp. 191-207. For a detailed and excellent account on various defects of planning in underdeveloped countries, see A.M. Watson and J.B. Dirlam, "The Impact of Underdevelopment on Economic Planning," **The Quarterly Journal of Economics,** Vol. LXXX, (May, 1965), pp. 167-94.

(17) H.G. Johnson, "A Theoretical Model of Economic Nationalism in New and Developing States," **Political Science Quarterly,** Vol. LXXX, (June, 1965), pp. 169-85.

(18) H. Johnson, **Op. Cit.**

to past economic history or to the current situation in most underdeveloped countries, have concluded that the development of agriculture or of exports of certain natural resource products constitutes a more logical path of development of these countries. The second is the tendency towards excessive emphasis on certain basic and heavy industries. In regard to the choice of industries to be fostered by development policy, there is marked tendency to consider certain industries as strategic, almost regardless of the size of the country, its location, or its available resources and skills. In the early stages of development, a steel industry is generally regarded as the **sine qua non** of economic development. A third tendency is the preference for public enterprise over private enterprise. Nationalism will tend to favour both extensive State control over and extensive public ownership of economic enterprises. The fourth is the tendency to place great emphasis on import substitution, where the particulars of the situation would indicate that economic efficiency would best be served by reliance on the principle of comparative advantage. [19]

More possible defects of development planning are insufficient worked out plans, insufficient project studies, and virtual absence of any investment criterion for project selection or any system of priority. Of course, a full-scale cost and benefit study for each project is out of the question. [20] In general, there are aspects of underdevelopment which are strategic in limiting the scope of planning, undermining the implementation of plans and slowing down necessary adjustment and remedial action. Important among them are lack of information, lack of suitable projects ready for implementation, lack of qualified personnel, uncertainties in the availability of external resources and the "tying" of credits to specific projects and to specific currencies, [21] and unfavourable factor environment.

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(19) H. Johnson, **Op. Cit.** See, also, Chapters IV, V and VI below.
(20) See A. Watson and J. Dirlam, **Op. Cit.,** and Chapters V and VI below.
(21) See U.N., Dept. of Economic and Social Affairs, **Planning for Economic Development : Report of the Secretary-General transmitting the Study of a Group of Experts,** (New York, 1963), p. 112.

To state these possible dangers and defects is not to belittle the crucial role of planning as a tool of policy in underdeveloped countries or to underestimate the importance of the efforts which these countries must make. The essential fact is that planning is very much limited by the present circumstances and conditions of these countries, and therefore must not be thought of as a process which is based on exact scientific calculations of economic and social behaviour, following rigorously the disciplines of econometrics and the more precise behavioural sciences. Nor can it spring from political dogmas and exhortations.[22] Rather, through trial and error, it is slowly and painfully evolving from the young and varied experiences of the underdeveloped countries themselves and from the relatively long and diversified experiences of the developed countries toward an increasingly "pragmatic" and effective method for economic and social change.[23] The immediate need is therefore to bring our various preliminary and fragmentary hypotheses to bear on the planning experiences of individual countries. Needless to say, the present study is intended to be a small contribution towards this end.

II — PLANNING PROCEDURE

Essentially, the elements of planning procedure are plan preparation, plan determination, plan formulation, plan implementation and plan "follow-up" and evaluation. By and large, these five elements usually are in such consecutive order. The

(22) It is not surprising to read in a plan of one of these countries (Pakistan's Second Five Year Plan, 1960/61-1964/65) a declaration such as "No Doctrinaire assumptions underlie the Plan, and neither an exclusively capitalist nor an exclusively socialist economy is postulated. The approach throughout is pragmatic." Cited in M. Ul Haq, **The Strategy of Economic Planning : A case Study of Pakistan,** (Oxford University Press, 1963), p. 4.

(23) For a brief and authoritative account on various planning experiences, see U.N., Dept. of Economic and Social Affairs, **Planning for Economic Development:..., Op. Cit.** For a detailed account, see the addendum to this report in U.N., Dept. of Economic and Social Affairs, **Planning for Economic Development, Volume II — Studies of National Planning Experience, Part I : Private Enterprise and Mixed Economies,** (New York, 1965); and **Part II : Centrally Planned Economies,** (New York, 1965).

first three are concerned with the problem of plan setting, and the last two, with the problem of plan implementing. Bearing in mind the continuity of planning, these elements are mutually dependent on each other, and also are equally important.

In general, **plan preparation** is the task of evaluating potentials by recording and analysing the present and past situations of economic and social activities, and projecting situations in the future as to which may be expected on the basis of some existing assumptions about the behaviour of relations between the variables of the economy. It is a sort of general "reconnaissance" of the economic structure [24] and its possible future development according to the pre-planning variables and relations. This will imply the estimation of a number of structural characteristics derived from the past performance of the economy.

Upon these preparatory studies, the next step in the planning procedure, namely, **plan determination,** will be actually based. In essence, it is concerned with the top decision-making problem regarding the shape and course of the economy as well as the society in the future. It is this strategic element that determines the course and the type of planning to be adopted. Among other things, it is generally concerned with these basic questions: what type of society is desired and what type of economy will lead to it, what type of planning (in the sense of planning comprehensiveness) can be applied to attain such type of economy, what economic and social objectives could be aimed at for achieving this type of economy, what kind of organization will make up these objectives into conceived and operational plans, where the place of such organization will be in the government machinery, etc. It is quite obvious that the whole effort of development in any country will certainly depend on how such vital questions are dealt with.

Given the basic social and economic data and given the answers to such national policy questions, the next logical step

(24) This expression is borrowed from Professor Jan Tinbergen's recent work: **Central Planning,** (New Haven and London: Yale University Press, 1964), p. 11.

is **plan formulation.** The purpose of formulating a plan is to identify and define the policies best calculated to achieve "given" general economic and social objectives. In fact, it is the translation of these objectives into detailed targets and specific tasks for particular economic and social activities. In this process, decisions have to be made about the pattern of resource allocation which appears to be most efficient in relation to general objectives. At the same time, the targets set for output and resource allocation have to be consistent with economic and technical possibilities and not place greater demands on the community than it has the capacity to mobilize. Planning techniques are simply the tools for the translation of general objectives into concrete and feasible programmes of action, according to certain conditions and relations among the various variables describing the economy. As a group, these conditions and relations are usually labelled as the "model" of the economy or society.

This translation process is commonly known in the literature as the "filling up" function. It is basically one of relating the macro to the micro. It has a twofold purpose : 1) filling up the national estimates by the sectoral estimates, and 2) filling up the sectoral estimates by the individual projects estimates. Accordingly, the elaboration of plans for the major sectors of production usually takes place concurrently with the formulation of a plan at the aggregate level. The testing of these plans' consistency with each other and with total available resources are then achieved through a process of successive approximations. Plan formulation is thus entailed a continuous readjustment of plans at the aggregate, sectoral and project levels until a consistent and feasible plan is finally reached.

The over-all consistency and feasibility of a national plan and sectoral production plans basically depend on such constraints as : the saving-investment balance, the external balance, the manpower balance, and the sectoral demand-supply balances. The first is the balance between total development

outlay planned and total domestic and external financial resources expected. The second is the balance between import requirements envisaged and prospective supply of foreign exchange. The third is concerned with the employment opportunities created by production plans and the total supply of labour. The fourth type of balances means that the total requirements generated by these plans should be rendered consistent with total supplies. These balancing tests should be satisfied if the national and sectoral plans are going to be consistent and feasible. (25)

In the early stages of development, plan formulation may consist of the elaboration of project and sectoral plans. (26) Plans for the industrial, agricultural or basic facility projects or sectors are sometimes drawn up probably because, in the view of the concerned government, the construction of such projects or the development of such sectors are critical for further growth of the economy as a whole. Such plans are probably rather in the nature of partial plans, consisting of programmes for development expenditure in the public sector. In general, they are considered as a means of co-ordinating, and of introducing a scale of priorities into, the development budgets of the various government departments. The deficiency of such project or sectoral partial plans is that they have not always been elaborated within the framework of a careful appraisal of the needs, resources and possibilities of the economy as a whole. This defect certainly widens the margin of error in planning. The common reason for such defects is the lack of necessary information, e.g., data about the level and composition of total output and expenditure. In turn, this may be due to mainly two related causes : 1) the virtual absence of the first element in the planning procedure, namely, plan preparation; and 2) the necessity and urgency of starting develop-

(25) For an excellent analysis of these balances, see U.N., Dept. of Economic and Social Affairs, **Planning for Economic Development : Report of the Secretary-General...**, **Op. Cit.**, pp. 21-27 and 35-40.

(26) See Chapter V below.

ment activities. It goes without saying that where data are lacking for the elaboration of aggregate plans, efforts should be made to overcome this defect as rapidly as possible.

In the formulation process, there are basically three key decisions for the planners to make. These are : 1) the allocation of resources between investment and consumption, 2) the allocation of development outlay among various sectors of the economy, and 3) the selection of projects to be established or expanded. Having been made, the nature of these decisions actually determines the kind of planning strategy adopted.

With respect to the first decision, in underdeveloped countries, it is an aim of policy to increase the share of resources allocated to investment in order to accelerate the rate of economic growth. However, the targets postulated for investment should necessarily be set in relation to the ability to achieve them. Otherwise, inflationary pressures and difficulties in the balance of payments will be the inevitable consequences. Clearly, the capacity to raise the rate of saving and investment rapidly is severely limited by the low levels of per capita real incomes in these countries. This entails the need for appropriate policies for resource mobilization and indicates the crucial role of external assistance, particularly during the initial stages of the development process. For the planners, the main task in determining investment targets is to analyse the possible future levels of private and public savings and to try to estimate the "possible" future inflow of foreign capital. But, in order to raise the level of investment, it is not only necessary to achieve a higher level of saving expressed in financial terms but also to ensure that the physical resources are available for realizing a corresponding increase in investment. In these countries, where the need to raise the level of saving and investment is obvious, more attention should accordingly be paid to the necessary structural changes of the economy in order to make available increasing supplies of capital goods. This structural adaptation should be based upon the demand composition, the raw material base, the

aim of increasing the country's export capacity, and the needs for longer-run growth.

As for the second decision, the specific targets set for investment in the different sectors of the economy such as agriculture, industry, power, transport and communications, and social facilities necessarily depend on the economic conditions prevailing in each country. The sectors crucial for economic development not only vary from country to country but also for the same country at different stages of its development. However, at the "initial stages" of development, more emphasis in investment allocation should generally be given to import substitution in both industrial and agricultural production of final or intermediate consumption goods. In other words, changes in the structure of production within these "early stages" should largely be shaped by the aims of meeting domestic demand for final and intermediate consumer goods from domestic production and of expanding export capacity. In addition, there may be certain possibilities for the domestic production of certain capital goods. However, these possibilities naturally depend on the economic circumstances of each country.

At a more advanced stage, where import substitution of consumer goods has been exploited and where the need for an expanding flow of capital equipment cannot in any case be met from foreign trade alone, "due" emphasis should be given to the development of heavy and engineering industries. Finally, whatever the pattern of industrial development adopted in any underdeveloped country, it is a well established fact that a rapid rate of industrialization and over-all growth can not be long sustained without improvement in the productive capacity of agriculture. A steady expansion in the supply of food and agricultural raw materials to the urban areas is in fact a condition of industrial growth. And in order to avoid serious stresses and strains on the economy in the form of inflationary pressures and increased imports of agricultural products, intensive efforts should be made to raise the productivity of this vital sector.

The third type of the strategic decisions is that concerned with the selection of projects. In principle, it is the choice among feasible alternatives, according to certain criteria. These alternatives are various ways of producing the same output or of earning or saving the same quantity of foreign exchange. For obvious reasons, the criterion of private profitability by itself may not result in creation of a structure of production consistent with the necessary and desired changes, at least during the early stage of development. Thus, the problem of choice has to be worked out, and to be effected in the private sector in consultation with its representatives and through such measures as imports licensing, building materials licensing, tariffs and other commercial policies, and fiscal and credit policies.

In theory, this problem of choice is extremely complicated, since choices between alternative methods of production affect relative prices and hence the composition of demand. The comparison of various projects will be extremely difficult. On this, a group of experts appointed by the U.N. Secretary-General rightly argues that, "A theoretically complete solution of the problem would require the construction of a general equilibrium model in which the demand and supply schedules in all product and factor markets, together with the production functions of all commodities, were known. However, since planning takes place in a dynamic context in which the structure of demand, supplies of productive resources and techniques are all changing, this approach is beyond the reach of practical application." (27)

Further complication is, as mentioned in Chapter I above, that market prices of the factors of production in underdeveloped countries do not accurately reflect their relative scarcities. Similarly, the price of foreign exchange seldom reflects its real marginal value. However, the widely accepted view is that some sort of comparison of total benefits and costs of various projects should be a valuable aid to the planners in the process of choice.

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(27) U.N., Dept. of Economic and Social Affairs, **Planning for Economic Development: Report of the Secretary-General.., Op. Cit., p. 19.**

Here, accounting or shadow prices, which more accurately measure relative scarcities, should be substituted for market prices in such calculations. [28] The adequate use of such prices, however, has often been hampered by difficulties encountered in assessing their appropriate values. Nevertheless, the "correct" values often differ so strongly from actual market prices that even rough guesses may be sufficient to improve considerably the selection of projects. In short, this difficult problem of choice seriously limits the usefulness of planning as a tool of policy, particularly during the advanced stages of development. Regarding this dilemma, most underdeveloped countries, in the process of formulating their development plans, are actually using some practical criteria. [29] Though often partial, vague and overlapping or even contradictory, some of these criteria seem to be reasonable and workable — at least for ranking various projects and further clarifying the patterns of priority of the national and sectoral plans. These criteria usually include a variety of items ranging from the total capital needed for the construction of the project, the foreign exchange component of this total, the period necessary for its completion, etc., to the project's direct contribution to national output and employment, the estimated net profits of the project, its effects on the balance of trade (import-saving and/or export-promoting), etc. [30] It is obvious that for formulating more realistic and effective plans, more systematic and realistic appraisal of

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(28) See, e.g., G.F. Papanek, "The Use of Accounting Prices in Planning", paper read at **UNCAST, Paper No. E/Conf. 39/H/87** (Nov., 1962), pp. 1-9.

(29) There are various theoretical investment criteria such as: social marginal productivity, marginal per capita reinvestment quotients, the time series criterion, and the marginal growth contribution of the project quotients. These criteria have been suggested and developed in the **Quarterly Journal of Economics** (1943 and onwards) by J. Polak, A. Kahn, H. Chenery, H. Leibenstein, W. Galenson, A. Sen and O. Eckstein. The major snag of such methods is the extreme difficulty in quantifying them. For a detailed review of these criteria, see A. El-Tigi, "Investment Criteria in Theory and Practice, with Special Reference to the United Arab Republic", **Unpublished Ph.D. thesis**, Edinburgh University, 1963), Part I, Chapters 1-7. See, also, A. Hirschman, **The Strategy of Economic Development, Op. Cit.**, pp. 76-83.

(30) For countries adopting such criteria, see J. Tinbergen, **Central Planning, Op. Cit.**, Table 18, p. 142.

projects (along cost-benefit lines) is needed. However, in the initial stages, the needs and priorities of development are fairly obvious and could be singled out with sufficient accuracy without the use of refined analytical techniques.

As for the tools [31] of plan formulation, a common preliminary step in this respect is to devise a simple aggregate growth model of the economy. Such models are of the Harrod-Domar types which were originally designed and utilized as a guide in the formulation of anti-cyclical policy in the Western developed economies, where the main pre-occupation was with the problem of maintaining adequate levels of effective demand. These models served as a means of projecting the level of economic activity which, given the existing economic structure and factor environment, might be generated by market forces. There are, in effect, strong grounds for criticism of such models' operational value for planning of economic development, where structural changes in the economy and society, (the "givens" of such models), are sought. [32] Hence, if these models are used, then they should be appropriately adapted to their new tasks. [33] More attention has to be given to the main behavioural or technical relations such as the propensities to save and import. Future changes of the structure of the economy as well as the intent of governmental policies have to be taken into account. The main task of such models is to provide a broad framework of targets for total output and its distribution between consumption, investment and exports. As a first step in the planning of resource allocation, some initial estimates may be made about the potential rate of increase in total output and imports,

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(31) These are concerned with the "mechanics" of plan formulation. They are the techniques for determining the aggregate targets and for working out the function of "filling up". Needless to say, they include the various criteria for selecting projects, just mentioned.

(32) See, e.g., W. Reddaway, "The Economics of Under-Developed Countries," **Op. Cit.;** and A. Hirschman, **The Strategy of Economic Development, Op. Cit.**

(33) For an example of this adaptation on the theoretical level, see H.W. Singer, "The Mechanics of Economic Development," **The Indian Economic Review**, (Aug., 1952), pp. 1-18.

about the proportion of additional income to be saved and invested and about the rates of increase in consumption and exports. The crucial function of filling up will eventually (through successive approximations) alter substantially these initial targets. The operational value of such an aggregate model is therefore limited. If greater weight is to be placed on a plan derived from such a model in the conduct of policy, then it requires a surer foundation in more detailed analysis of economic conditions and prospects.

The tools for this purpose may be broadly divided into two groups. On the one hand, there are the "trial-and-error" methods which may be called the operational judgments models. On the other hand, there are the "formal mathematical" methods or models. The first type consists of practical devices which can be used separately by steps for macro-economic estimates, sectoral targets, and project appraisal on mainly intuitive and qualitative judgments. These judgments in turn are based on factual data, statistical projections and basic economic relations. The second group comprises a variety of econometric models.[34] In principle, a formal econometric model is an organized set

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(34) Important among them are :

1 — The linear programming models — see, e.g., U.N., United Nations Economic Commission for Asia and the Far East, **Programming Techniques for Economic Development,** (Bangkok, 1960); and R.M. Solow, "On the Structure of Linear Models," **Econometrica,** Vol. 20, (Jan., 1952), pp. 29-46.

2 — The non-linear programming models — see, e.g., H. Chenery and H. Uzawa, "Non-Linear Programming in Economic Development," in K. Arrow and others, (eds), **Studies in Linear and Non-Linear Programming,** (Stanford, 1958).

3 — The Static input-output models — see W. Leontief, **The Structure of the American Economy,** (New York, 1953); and H. Chenery and P. Clark, **Interindustry Economics,** (New York, 1959).

4 — The dynamic input-output models — see, e.g., P. Rosenstein — Rodan, (ed.), **Capital Formation and Economic Development,** (London : Allen and Unwin, 1964).

5 — The mathematical successive-approximations models — see J. Tinbergen and H. Bos, **Mathematical Models of Economic Growth,** (New York, 1962).

6 — The comprehensive optimal channel models — see R. Frisch, "How to Plan," The Institute of National Planning, **Memo. No. 380,** (Cairo, 1963).

7 — The two-level planning models — see J. Kornai and Th. Liplak, "Two-Level Planning," **Econometrica,** Vol. 33, (Jan., 1965), pp. 141-69.

of relationships that describe the functioning of an economic entity (whether a household, a single industry, a sector of the economy or the economy as a whole) as a set of quantitative or quantifiable equations which can simultaneously be solved. A policy model of this type is designed to determine whether proposed economic policies are mutually consistent and to facilitate the choice among them. However, in the absence of prior knowledge of the relative valuation of social and cultural as well as some economic objectives and relevant data, the economist, as Professor H. Chenery has argued, can not determine an "optimum" plan.[35] At best, he can present the alternatives in such a way as to focus political attention on the problem of determining a social choice among a limited number of relevant alternatives. Accordingly, whatever detailed and refined such models may be, they must be supplemented by qualitative and trial methods.[36]

However, during the initial stages of develoment, the most operational and reasonable course for underdeveloped countries to adopt is the first type of methods, taking, if possible, the other elaborate methods as a supplementary checking device. This does not mean that development planning should be anti-mathematical. What it means is : 1) the recognition of the difficulty of using these mathematical methods at such early stages where there is not enough relevant data,[37] 2) the various limitations of these methods **per se,** and 3) the importance of qualitative judgments in this process of structural change.[38]

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(35) See H.B. Chenery, "A Model of Development Alternatives," paper read at **UNCAST, Paper No. E/Conf. 39/H/73,** (Nov., 1962), pp. 2-3.

(36) H. Chenery, **Op. Cit.,** pp. 1 and 7.

(37) See, e.g., A.T. Peacock and D. Dosser, "Input-Output Analysis in an Under-developed Country : A Case Study," **The Review of Economic Studies,** Vol. XXV, (Oct., 1957), pp. 21-24.

(38) See R. Frisch, "Planning for the United Arab Republic," **a Public Lecture** delivered on 8 Feb., 1964 in the Egyptian Society for Political Economy, Legislation and Statistics, **an improved formulation** (Jan., 1965), pp. 1-2, where the distinguished econometrician, speaking of a scientifically worked out global plan frame with optimality computations, says, "I must state quite explicitly that this technique only aims at being an aid for decisions on the economic policy, just like the

A necessary requirement for a trial-and-error method is a system of national accounting. Basically, it consists in balancing planned targets or estimated demands with available resources at various levels of planning — from the macro to the micro. Such systems, in various degrees of detail and refinement, are actually used in most underdeveloped countries.[39] However, to a considerable degree, the ability to formulate plans realistically, as well as to implement them effectively, depends on the adequacy of the system of economic reporting. This means that fairly extensive channels of information between the central planning agency and the economy at large have to be established and developed if detailed information about plans and intentions in the various sectors of the economy is to be available.

The fourth element in the planning procedure is **plan implementation.** It is concerned with economic, social, political and administrative measures which are thought to be necessary for the process of fulfilling the plan. The aims of plans and the means selected for their implementation, however, are not choices that can be made independently of one another. If the methods of implementation have to be approriate to the objectives, it is true that the objectives have to be realistically chosen, observed and subsequently modified to suit changing circumstances, in the light of the measures for implementation available to governments. Thus, plan implementation is, in effect, the application of the means generally set in the plan to achieve the aimed at targets. In general, these means are necessarily in-

compass is an aid for the master of a ship when he decides what course to follow." Agreeing with Professor Frisch, one may add that the compass must not be so very highly complicated as to be in fact of no use to the inexperienced master.

(39) See U.N., Dept. of Economic and Social Affairs, **Planning for Economic Development, Volume II — Studies of National Planning Experience, Part I, Op. Cit.** Most developed countries are using more elaborate versions of this system which should be a valuable source of information on methods for underdeveloped countries. For an excellent review of various national accounting systems in developed countries, see M. Yanovsky, **Anatomy of Social Accounting Systems,** (London : Chapman and Hall, 1965).

fluenced by the nature of plan formulation, the social and institutional setting and the level of development already attained. They generally include measures to raise the level of domestic and external savings, to direct the utilization of national resources, especially foreign exchange, towards the desired priorities, and to establish or develop the administrative and technical apparatus through which the main objectives of the plan are to be attained.

The fifth element [40] in the planning procedure, namely, plan **"follow-up" and evaluation,** is the periodic review, adjustment and over-all appraisal of the implementation process. Here, the quality and comprehensiveness of the system of economic reporting are of crucial importance. Basically, plan evaluation is the contrast of the actual and planned data, i.e., targets v. achievements, and the analysis of probable disparities between these two types of data, searching for the causes and assessing the effects of the whole planned efforts on the economic situation, in general. However, one can not think of planning effectiveness as the precise measure of the influence exerted by planned efforts on the general economic process of a country in a comparative sense of what has happened with planning and what would have happened in the absence of it. As Professor Tinbergen put it, "...it is virtually impossible, with the present state of our knowledge, to make a theoretically satisfactory comparison between what happens with and what happens without planning." [41] However, this does not mean the impossibility of identifying the impact of planning as a tool of policy on the development process of a country, through recording the effects of the total planned efforts on the levels and changes of the key economic variables during the planned period. This appears to be a reasonable proposition, particularly for the underdeveloped countries, where long periods of economic stagnation have been witnessed. Therefore, planning effectiveness during a certain period

(40) The organizational side of planning procedure, vital as it is for the whole process, has not been discussed in this section, as the main concern of this study is planning methods and effectiveness.
(41) See J. Tinbergen, **Central Planning, Op. Cit.,** p. 54.

of time may be regarded as the relative impact of planned economic development on the country's major economic problems.

III — THE NATURE OF THE COMPARATIVE APPROACH

This section is a short note on the well-known limitations of the comparative approach and the course adopted towards them in conducting this study of development planning in India and Egypt.

The comparative approach is as old as human knowledge. (42) In social sciences, comparison is widely considered as the fundamental method of analysis, where it has the role which experiment held in the physical and biological sciences. As the analysis of similarities and differences between societies and institutions, it is the best means of discussing and testing the fundamentals of social sciences.

In general, there are three basic classifications of the comparative approach. From the point of view of the nature of the comparison, there are two broad categories : one is to compare analogous phenomena, studied according to the same technique of analysis ; and the other is to compare different views or types of the same phenomenon, obtained by using different analytical techniques or resulted from adopting different tools of policy. (43) According to the time order, there are two ways of conducting comparisons : either through time, "inter-temporal" comparison of one phenomenon (the time-series method) ; or at a point in time, "inter-spatial" comparison between phenomena (the cross-

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(42) For detailed accounts on the history of the comparative approach and comparative studies, particularly in economics, see, e.g., National Bureau of Economic Research, **The Comparative study of Economic Growth and Structure: Suggestions on Research Objectives and Organization,** (New York : NBER, 1959), pp. 3 - 17 and 145 - 61 ; and S. Rokkan, "I-Methodology-Introduction : The Use of Sample Surveys in Comparative Research», **International Social Science Journal,** Vol. XVI, (Paris : Unesco, 1964), an issue on **Data in Comparative Research,** pp. 7 - 10.

(43) For details and examples see, e.g., M. Duverger, **Introduction to the Social Science,** (London : Allen and Unwin, 1964), pp. 261-70.

sections method). [44] Finally, from the point of view of the scope and the degree of systematisation of the comparison, there are two major methods : the first is the close and systematic method which is what is really meant by the comparative approach ; and the second, the general "comparative systems" method which is known as the "typological" method, according to which the compared phenomena are often treated separately, with some general comparative analysis. [45]

However, in adopting one or more of these methods, [46] one immediately discovers the primitive nature of the existing tools of analysis. Very little, if anything, have been done within each discipline to develop the tools of analysis and the testing procedures required in handling data at various levels of comparability. [47] The basic cause for this stems from the difficulty of defining equivalent situations, i.e., the collection of identifiable elements which can be regarded as equivalent for a specific comparison. Economics is no exception to this general state in social sciences.

Even after a Clark, a Kuznets and a Gilbert, [48] tools of eco-

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(44) For details and examples, see National Bureau of Economic Research, **The Comparative Study of Economic Growth and Structure : . . , Op. cit.,** pp. 79 - 84 and 193 - 200.

(45) For details and examples, see National Bureau of Economic Research **Op. cit.,** pp. 177 - 84. See also, among many others, G.N. Halm, **Economic Systems : A comparative Analysis,** (New York, 1960) ; and W.N. Loucks, **Comparative Economic Systems,** (New York, 1961).

(46) In principle, the three classifications are not mutually exclusive. All may be regarded as elements of a comprehensive comparative approach. In a comprehensive comparative study, most of these elements may be used. Of course, it all depends,among other things, on the purpose of the study, and the data available.

(47) See, e.g., Rokkan, **Op. cit.,** p. 8. For detailed explanation of the dearth of systematic comparative studies of economic development, structure and policies, see National Bureau of Economic Research, **The Comparative Study of Economic Growth and Structure : . . , Op. cit.,** pp. 25 - 28.

(48) See Colin Clark, **The Conditions of Economic Progress,** (London : Macmillan, 1957), 3rd Edition ; M. Gilbert and I.B. Kravis, **An International Comparison of National Products and the Purchasing Power of Currencies : A Study of the United States, the United Kingdom, France, Germany and Italy,** (Paris : O.E.E.C., 1954) ; and M.

nomic comparison are still in their infancy. The basic cause of this state is the "index-number" problem. This is the usual problem of the choice of weights. For example, in production indexes the apparent relationship between the volumes of total production in two years (or two countries, at a point in time) may well vary substantially according to whether the quantities produced in the two years (or the two countries) have both been valued in the prices of the first year (or the first country) or the second. The obvious reason for these probable variations centres on the fact that relative price structures will normally change from one year to another (or from one country to another), thereby presenting alternative sets of weights for combining the movements between the two years (or the two countries) in the quantities of the individual goods produced.

This index number problem may be reduced to two major elements. The first results from the need to use estimates of national income and product and related magnitudes that are similar with respect to the scope of economic activities covered, the degree of grossness in transactions adopted, and the method of valuation of entries used. The second element arises primarily from the fact that a large proportion of all statistics that are relevant to the analysis of economic development, structure and policies are originally expressed in monetary units of the place and time of occurrence. The first element may be called the "invariance" problem, the second, the "deflation" problem. The deflation problem has two variants : the first is the "adjustment" variant (comparison over time), and the second, the "translation" variant (comparison between countries).

To solve the invariance problem, similar measures regarding

Gilbert and Associates, **Comparative National Products and Price Levels : A Study of Western Europe and the United States,** (Paris : O.E.E.C., 1958). As for Professor S. Kuznets, it is quite difficult to cite his works in a footnote — some of them have been cited in Chapter I above. However, See, e.g., his "National Income and Industrial Structure", **Econometric Society, Proceedings of the International Statistical Conferences,** Vol. V, (Washington D.C., Sept., 1947).

output estimates, scope of coverage and degree of grossness which are not affected by the institutional setting or changes must be found and adopted. [49] To solve the deflation problem, numerous practical difficulties must be tackled first. Examples of these difficulties are : the shortage of price quotations for commodities and services that are identical or at least very similar, the inadequacy of descriptions of the commodities and services to which available prices refer, the scarcity of budget and other data on which to base the weights for the combination of the individual price quotations, and insufficient knowledge about quality changes and diferences — hence the problem of matching of goods and serivces. Even if these difficulties were successfully tackled, the problem of deflating the original data (i.e. adjustment and translation — for price changes and to a common monetary unit) will remain, unless all prices are the same in the situations compared and there is no difference in tastes. But, as Professor Goldsmith says, this never happens. [50] So, up to now, no satisfactory method is available either on the conceptual or the practical level of translating figures for virtually all the economic variables into a common unit, i.e., to make them on a strict comparable basis.

At this stage of development of the tools used in the comparative approach, one may distinguish three main techniques in usage. These are : the "proportion" technique, the "common-currency-unit" technique, and the "purchasing-power-equivalents" technique.

The first technique is based on the expression of the components of the gross national product, or for that matter any economic variable, as percentages of the total or as indexes in time series. Such calculations, as Professors Gilbert and Kravis

(49) For more details on this problem, See Kuznets, «National income and Industrial Structure", **Op. cit.,** National Bureau of Economic Research, **The Comparative Study of Economic Growth and Structure : ..., Op. cit.,** pp. 79-85; and National Bureau of Economic Research, «Problems in the International Comparison of Economic Accounts', **Studies in Income and Wealth, Vol.** 20, (Princeton : NBER, 1957).

(50) National Bureau of Economic Research, **The Comparative Study.., Op. cit.,** p. 83.

assert, have obvious validity in comparing the relative allocation of resources for such purposes as defence expenditures or gross investment and in analysing developments over time.[51] The main statistical problem involved in comparisons of this type is that of assuring comparability in the concepts used to measure the compared economic variables and their components, provided the estimates of the various variables are of the same degree of accuracy. While these difficulties have not yet been overcome for any large number of developed countries, let alone the underdeveloped, they are universal difficulties for all the existing techniques. However, the more the compared countries are in the same stage of development and using more or less standard methods in estimating various economic variables (or at least their methods are known), the more realistic this technique will be. The significant limitation of this type of comparison, however, is that it does not provide any indication of the absolute level of the gross national product or its components, or other economic variables, among countries. In other words, it shows the relative percentage of resources being devoted to, say, gross investment for the given group of countries, but not the comparative level of real investment among them.

The second technique is that of converting the national products of the various countries compared, as estimated in terms of national currencies, into a common currency unit by means of prevailing, or adjusted or even official exchange rates. The dollar has been most frequently used as the common currency for this purpose.[52] The possibility of considerable error in these comparisons stems from the fact that the internal prices of goods and services sharply differ among the compared countries. Thus, in order to produce even approximately correct results, it would be essential for the average relationship of the

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(51) M. Gilbert and I. Kravis, **Op. cit.,** pp. 13 - 14.

(52) See, e.g., U.N. **Per Capita Natoinal Product of Fifty Five Countries, 1952-54,** (New York, 1957) ; and U.N., **A System of National Accounts and Supporting Tables,** Statistical Office of the United Nations, (New York - 1952). **For a more refined** methods, but still suffers from the defects of this technique, **see** Colin Clark, **The Conditions of Economic Progress, Op. cit.**

internal purchasing power of currencies to be the same as the exchange rates used to convert the national products and other economic variables to common currency units. There are many reasons, as mentioned above in connection with the deflation problem, why this equivalence is highly improbable, if not impossible.

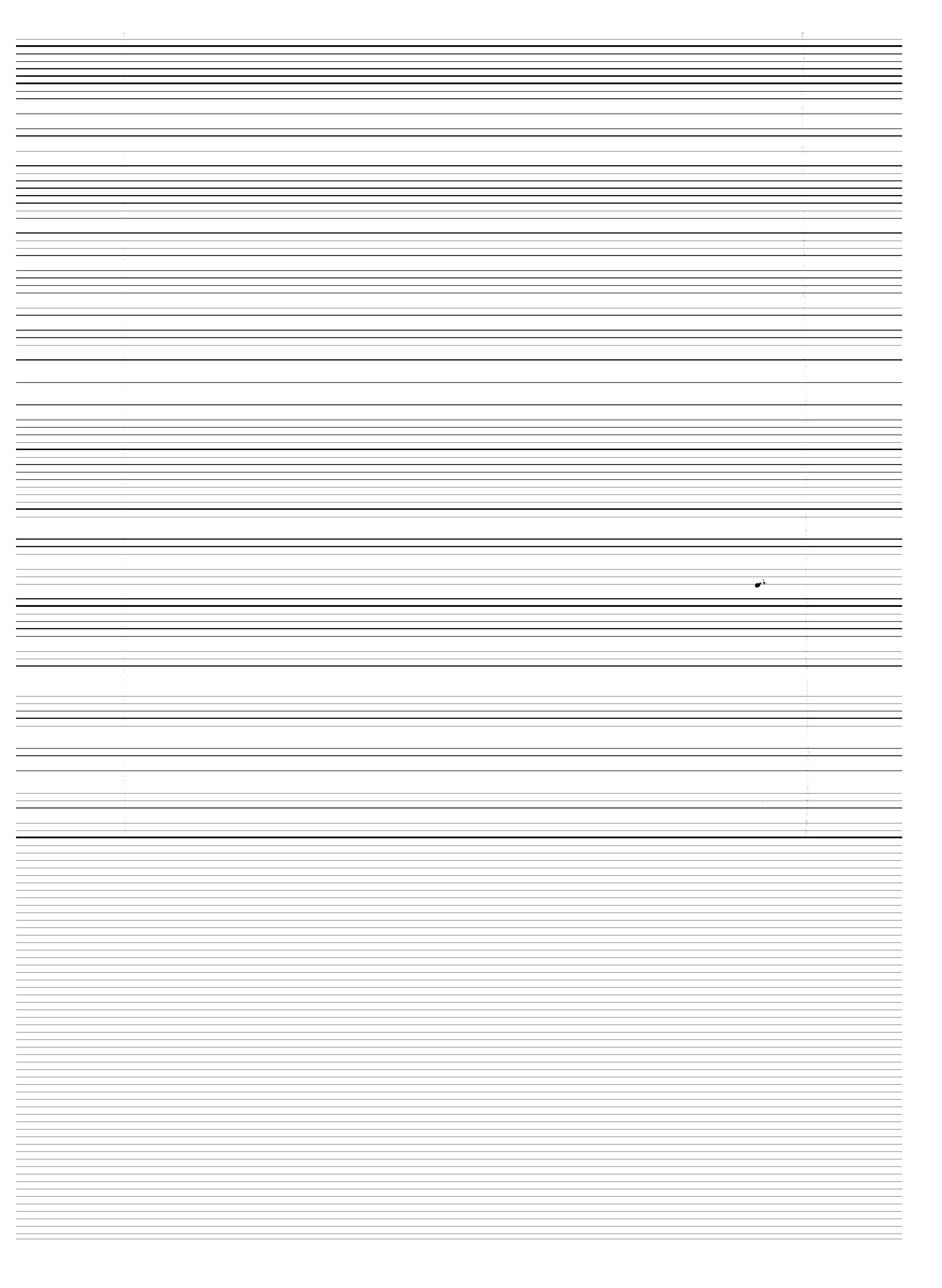
The third and more refined and realistic technique is the purchasing power-equivalents. This is mainly suggested and developed by Professors Gilbert and Kravis.[53] According to this technique, inter-country comparisons are done in a very similar way to that of inter-temporal comparisons. This technique involves securing appropriate quantities, prices, and values for as detailed a breakdown of the gross national product as is possible for any two countries to be compared, and then weighing the data for each country with the weights of first one and then the other. This produces two indices of the real product relationship and the internal purchasing power of the currencies of the two countries compared. The difficulty of this technique stems from its requirements of great details about prices and quantities of the products composing the gross products of the countries compared that were available only to a limited degree in published sources. This is with respect to the developed countries. For underdeveloped countries, the problem of data availability and collection is much more acute. Also, one must bear in mind that to conduct any comparative study according to this technique, a fairly adequate staff resources must be available, and trained personnel must be sent to the compared countries to tap unpublished sources and to collect additional material from the field — together with a close co-operation of the statistical organizations in the countries concerned.

Having briefly reviewed the three main techniques of the comparative approach, and having known that to apply the last

(53) See Gilbert and Kravis, **Op. cit.**, pp. 13 - 28 ; and Gilbert and Associates, **Op. cit.**, pp. 17 - 33.

one is practically impossible for any individual researcher by himself and that the second technique is grossly misleading, the only technique that may help in the present study is the first one, namely, the proportion technique. However, as a general rule in this study, absolute data will explicitly be stated (in each country's currency and at each country's constant prices — for monetary data) to show the bases of the percentages compared — between the two countries or over time for each country. Also, they will be used, together with the proportion technique, in the evaluation and over-all appraisal of the two planning experiences, as indicated in detail below (Chapters VII and VIII). Finally, absolute data in per capita or per unit of factor of production forms, together with the proportion technique, will be used during the discussion on the two countries' relative standards of living and economic potentialities[54] — in several parts of the rest of this study, below.

(54) For the effects of the size of nations on economic development and efficiency, see International Economic Association, **The Economic Consequences of the Size of Nations,** Proceedings of a Conference held by the International Economic Association, Lisbon, 1957, (London : Macmillan, 1960), particularly pp. xi-xxii, where it is stated that on the whole these effects are more or less neutral.



CHAPTER III

PRE-PLANNING ECONOMIC STRUCTURE

The progressive state is in reality the cheerful and the hearty state to all the different orders of the society. The stationary is dull; the declining melancholy.
Adam Smith, **An Enquiry into the Nature and Causes of the Wealth of Nations,** (1776).

To furnish an empirical base for this study, this chapter is mainly concerned with a quantitative analysis of the pre-planning economic structure and changes of India and Egypt. The reasons for providing this base are at least four : 1) to give two examples of the state of economic underdevelopment, analysed in chapter I above, and to depict the abject economic poverty that existed in the two countries and the urgent need to alleviate the condition; 2) to show the tremendous task that must be performed if there is to be any significant increases in the economic well-being of the people of the two countries; 3) to present the basic physical and economic framework within which the economic planners in the two countries had to operate; and 4) to provide the background against which successes and failures of the two planning experiences will be appraised. In short, before attempting to

ascertain the factors and forces that helped to shape the two planning experiences, one should be aware, at least in general terms, of the capabilities and limitations over time of the prevailing economic structure and the nature and implications of the basic economic problems of the two countries.

Accordingly, an introductory and brief section will be devoted to a general review of the fundamental features and changes of the Indian and the Egyptian economies during the first forty-five years of this century, with some brief remarks on how these features arose out of the previous century. The second and main section will be devoted to a more detailed analysis of the two countries' economic structures and changes during the five years immediately before the serious and deliberate efforts to tackle the problem of economic underdevelopment took place in the two countries, namely, 1946-50.[1]

I — ECONOMIC STRUCTURE AND CHANGES PRIOR TO 1946

Egypt and India are known to have had the most developed ancient civilizations in the world.[2] Economically, the two countries, like all other existing countries, were characterized by the self-subsisting, self-sufficing and self-perpetuating features of their primitive and small communities. Agriculture

(1) The shortcomings of the statistical material available on the economies of under-developed countries hardly need to be stressed. The statistical data of the two countries of this study are no exception. The data used in this chapter (and the following chapters) should therefore be treated as indicating the order of magnitude rather than the precise measurement of the phenomena they are supposed to depict. However, it goes without saying that the data presented have been carefully collected and checked. Their comparability has also been, to the extent possible, observed without any drastic adjustments that might affect the represented phenomena.

(2) Admittedly, the following few remarks on the economic conditions of India and Egypt during ancient times and the first nineteen centuries A.D. are grossly general and over-simplified. However, due to the obvious dearth of data, quantitative analysis of the two economies over this long period, or most parts of it, is virtually impossible. The limited purpose of these remarks is just to serve as an introductory account to the main point of this section, namely, economic structure and changes of the two countries during the period 1900 - 1945.

and hunting were the main way of life. There were also some handicraft industries for meeting these communities basic needs. Commercially, the towns had a one-way relation with the countryside, taking foodstuffs and manpower (as a tribute) and supplying virtually no goods in return.[3]

During the first fifteen centuries A.D., almost every country was economically stagnant. Egypt and India were no exceptions. Economically, the two countries had not considerably changed from their ancient times. The primitive village economy continued to be the predominant feature, with agriculture as the main source of living and an increasing role for handicraft industries — mainly due to growing commercial activities with the outside world. The Nile in Egypt and the monsoon in India continued to be the principal determinants on economic life in the two countries. When there was a failure of the Nile or a bad monsoon, the most terrible famines were experienced.[4]

During the 16th, 17th and 18th centuries, while most of the present developed countries began to depart from the prevailing general pattern of economic stagnation, Egypt and India remained stagnant, if not actually declining. Egypt was bypassed by European and world trade (after the discovery of the Cape of Good Hope), exploited and neglected by the Ottmans, and pillaged by the Mameluks. By the end of this period, Egypt had culturally and economically become a stagnant backwater. India was not in a better position. It was torn by the Mughal wars, badly disunited after Akbar and commercially exploited

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(3) For detailed accounts and references on this period as well as the first nineteen centuries A.D., see, for India, e.g., M. Morris and B. Stein, «The Economic History of India : A Bibliographic Essay", **The Journal of Economic History,** Vol. XXI, (June, 1961), pp. 179 - 207, P. Spear, (ed.), **The Oxford History of India,** (Oxford University Press, 1958), and H.R. Ghosal, **An Outline History of the Indian People** (New Delhi, 1962) ; and for Egypt, e.g., A. El-Djabarti, **Merveilles Biographiques et Historiques au Chroniques,** 6 tomes, (Le Caire, 1881 - 1891), C. Issawi, "Egypt Since 1800 : A Study in Lop-Sided Development", **The Journal of Economic History,** Vol. XXI, (March, 1961), pp. 1 - 25, and his **Egypt in Revolution : An Economic Analysis,** (Oxford University Press, 1963), and Z. Y. Hershlag, **Introduction to the Modern**

(4) See, for India, Ghosal, **Op. cit.,** and for Egypt, Issawi, **Egypt in Revolution :...,**

Economic History of the Middle East, (Netherlands : Brill, 1964).

Op. cit.

by the Portugese and other European traders, particularly towards the end of this period.

In both countries, though in very primitive and neglected conditions, agriculture continued to be the way of life for the majority of the population and the chief source of revenue for the government. By that time standards, however, there were at the beginning of this period well-established handicraft industries. These industries experienced during this period severe destructive conditions. For the Egyptian industries, this largely was at the very beginning of this period (1517), when Slim I, the Turkish Sultan, sent virtually all the Egyptian artisans in Cairo to the Ottman capital — Constantinople. For the Indian industries, it was towards the end of the period (the second half of the 18th century), under the rule of the East India Company — mainly through unfavourable commercial activities. Thus, in both countries, the general picture was poverty and decline. The "State" as we understand it today or even by those days "European" standards was virtually absent.[5]

The first half of the 19th century witnessed drastic changes in the two countries. Efforts towards preserving law and order, and achieving national unity in the Indian case, and maintaining national unity in the Egyptian, were made. The old structure of the village economy was disintegrated. New land systems were introduced. The commercialization of agriculture was carried out. And the "falling-off" process of handicraft industries was intensified. These structural changes were the direct consequences of the opening of the two countries to the Western civilization by the East India Company in India, and the French and Muhammad Ali in Egypt. These changes would have been a positive step towards developing the two countries, if this was the purpose of their rulers. Unfortunately, it was not. The basic purpose was (naturally) to seek the largest

(5) For details, see, for India, W. Moreland, **India at the Death of Akbar : An Economic Study,** (London : Macmillan, 1920), and R. Dutt, **The Economic History of India :Under Early British Rule,** (London : Routledge and Paul, 1901); and Egypt, Hershlag, **Op. Cit,** and Issawi, **Egypt in Revolution :...,** **Op. cit.**

possible profits from commercial activities, in the case of the Company. In the case of Muhammad Ali, it was to achieve personal glory. To establish themselves politically, intensive and expensive military operations were necessary. To finance these operations, heavy land taxes were the obvious source of revenue. To make a success of the process, centralization of the administration and planning for financial resources and (indirectly in the Company's case and directly in Muhammad Ali's) for all other economic activities seemed to be essential. Basically, the general policies of Muhammad Ali and the Company were surprisingly similar. Heavy taxation of agriculture, the factory system and the decaying and over-taxed handicraft industries, unbelievable profits from internal and external trade, poverty-stricken peasantry, and wars for their own ends (Muhammad Ali's and the Company's) were the fundamental features of the two systems.

The striking dissimilarity was probably that while Muhammad Ali's attempt, irrespective of his objectionable means (particularly his extremely centralized administrative machine and his system of monopolies) and faulty ends, was nevertheless a genuine and direct attempt to develop the country into a modern industrialized one, the Company's was not. It was basically directed towards extracting the largest posible revenue from the country's economic activities and employing this revenue for its own benefits. Muhammad Ali's attempt failed mainly because it was sought through individual wild ambition, regardless the people of the country. The Company's attempt succeeded mainly because of its exactness and deliberateness. Both failure and success were unfortunately in the opposite direction of the interests of the two countries. By the end of this period, Egypt and India were economically exhausted, poor and dependent — with agriculture as their all important way of life, and industry crippled and unprotected.[6]

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(6) For details, see for India, Daniel and Alice Thorner, **Land and Labour in India,** (London : Asia Publishing House, 1961), H.B. Lamb, «The State and Economic Development in India», in S. Kuznets, W.E. Moore and J.J. Spengler, **(eds.), Eco-**

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The second half of the 19th century was a crucial period in determining the state of underdevelopment of the Indian and the Egyptian economies in recent years. The process of "under-developmentization" of the two economies, which began in the 16th century and took more shape by the end of the first half of the 19th century, was intensified during the second half. This is mainly so, because the two economies were more or less deliberately set on the road of being dependent economies, burdened with avoidable debts and primitively agricultural — with deliberate policies of neglecting and even prohibiting their industrialization, and of pursuing "open door" trade with the outside world. (7)

Though the falling-off of the handicraft industries was phenomenally a world wide development because of the industrial revolution, India and Egypt had experienced two deliberate and unfavourable developments in this field. The first is that the falling-off of these industries was quite rapid. The second is that they were not compensated for by a sufficient or in fact any reasonable rise in modern industries. (8) The decaying of these industries was not so natural and its natural consequence (modern industry) was deliberately arrested. With imposed

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nomic Growth : Brazil, India, Japan, (Duke University Press, 1955), and R. Dutt, **The Economic History of India in the Victorian Age,** sixth edition (London, 1950); and for Egypt, Hershlag, **Op. cit.,** Issawi, «Egypt Since 1800 :...», **Op. cit.,** H.A. B. Rivlin, **The agricultural Policy of Muhammed Ali** in Egypt, (Harvard University Press, 1961), and the review article of Rivlin's work by Professor E. Penrose, «Economic Development and the State : An Object Lesson from the Past», **Economic Development and Cultural Change**, Vol. XI, (June, 1963), pp. 196-202.

(7) For details and supporting evidence, see, for India, e.g., D. R. Gadgil, **The Industrial Evolution of India in Recent Times**, (Calcutta : Oxford University Press, 1942), and his «Indian Economic Organization», in S. Kuznets and others, (eds), **Economic Growth : . . . ,Op. cit.**, Thorners, **Op. cit,** Lamb, **Op. cit.,** and R. Dutt, **The Economic History of India in the Victorian Age, Op. cit.;** and for Egypt, e.g., Issawi, «Egypt Since 1800 : . . .», **Op. cit.,** and his **Egypt in Revolution : . . ., Op. cit.,** Hershlag, Op. cit., A.A.I. El-Gritly, «The Structure of Modern Industry in Egypt» **L'Egypte Contemporaine,** Nos. 241-42, (November-December, 1947), and D. S. Landes, Bankers and Pashas : **International Finance and Economic Imperialism in Egypt,** (Cambridge, Mass., 1958).

(8) See, for India, Thorners, **Op. cit.,** and for Egypt, El-Gritly, **Op. cit.**

"open-door" trade policies on India and Egypt and the passive and sometimes discouraging role of their governments, any attempt towards industrialization was doomed to failure from its beginning. Unlike, e.g., the German or the Japanese, the Indian and the Egyptian industries received virtually no governmental assistance, such as : tariff protection, favourable transport charges, credit facilities, etc. During this period, Egypt and India were therefore integrated as primitive agricultural units in the world-wide economic system.

Accordingly, this period witnessed considerable growth in agriculture and trade, in both countries. Substantial increases in agricultural production were achieved virtually without touching the traditional methods and processes of cultivation. Further specialization towards cash crops was experienced. This was particularly so in the case of cotton which was greatly stimulated by the American Civil War (1861-65). This agricultural development was largely helped by intensive public works in transport and communications and irrigation, particularly in the Egyptian case. (9) The development of transport and communications, together with modern financial institutions, immensely helped the growth of international trade, with growing trade surpluses throughout this period, in both countries. (10)

This development of the infra-structures of the two economies would have been a sure step towards sustained development process, if it had not been for the extremely unfavourable measures of financing it. At a time when such development could have largely been financed from national resources, it was, in fact, largely and extravagantly financed by borrowed money from the European capital market on usurious terms. This was aggravated by the foolishness and private extravagance of the rulers and the corruption of their subordinates in the Egyptian

(9) In fact, it was an irrigation revolution which started with the introduction of perennial system by Muhammad Ali, See, e.g., Hershlag, **Op. cit.**, and Rivlin, **Op. cit.**

(10) See, for India, R. Gadgil, **The Industrial Evolution of India ....**, **Op. cit.**, and Lamb, **Op. cit.**; and for Egypt, Issawi, **Egypt in Revolution :...**, **Op. cit.**

case,[11] and the extremely high administrative costs and heavy military expenditures in the Indian.[12] So, instead of the surpluses of agriculture and trade being partly invested in further and diversified development activities and partly directed to the purpose of raising the appallingly low standard of living of a growing population, they were virtually eaten up by services of rapidly swelling public debts to the international financiers.[13]

With these large debts, the government of each country as usual turned to a primitive and over-loaded agriculture with severe and uncertain taxes.[14] However, in 1880 the Egyptian treasury was unable to pay even the interest charges. So, a "dual control" system was imposed on Egypt to run its economic affairs, mainly to raise revenues and distribute them among the bondholders.[15] As for India, though reliable statistical data are virtually absent, one would agree with Professor Thorner in asserting that India of 1900 was economically much poorer than India of 1850.[16] In sum, with over-taxed agriculture and very limited and unprotected industry, the two countries entered the 20th century with dependent and underdeveloped economies. By that time, the economic problem in both countries began to change into its present difficult phase, namely, the population pressure on the national resources.

The basic features of the economic policies of the second half of the 19th century were more or less at work nearly up to

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(11) For supporting evidence, see, e.g. Landes, **Op. cit.**; Hershlag, **Op. cit.**; and Issawi, **Egypt in Revolution :..., Op. cit.**

(12) For supporting evidence, see, e.g., Lamb, **Op. cit.**; and B.R. Shenoy, **The Sterling Assets of the Reserve Bank of India,** (Bombay, 1946).

(13) The growth of public debt was particularly rapid in the Egyptian case due to the extremely high rates of interest, exorbitant discounts and expenses set by the creditors. For supporting evidence, see, e.g., Hershlag, **Op. cit.**; and Landes, **Op. cit.**

(14) For supporting evidence, see, for India, Lamb, **Op. cit.**, and R. Dutt. **The Economic History of India in the Victorian Age, Op. cit.** and for Egypt, e.g., Hershlag, **Op. cit.**

(15) Eventually, Egypt also lost its political independence (in 1882) to the British who replaced the «dual control» from 1883. For details, see, e.g., Hershlag, **Op. cit.**, and Landes, **Op. cit.**

(16) Thorners, **Op. cit.**, p. 82.

the end of the third decade of the 20th century. There were more emphasis on commercial agriculture and export of raw materials, and relative negligence of "balanced" development of the two economies in general and industry in particular. However, mainly due to the circumstances of two World Wars and a somewhat national political maturity, India and Egypt made some progress in idustry. This was particularly so during the late 1930's and 1940's, as will be discussed below. But, alas, it was a case of "too little and too late," to borrow Helen Lamb's expression. By then, most of the economic difficulties sown during the preceding four centuries grew quite sizably and gave birth to many others such as : population problem, food problem, shortage of cultivated land, shortage of skilled labour, shortage of investible capital, shortage of entrepreneurial talents, and the rest. [17] By the end of World War II, it is extremely doubtful that the standard of living in India and Egypt had, even slightly, risen — compared with its level at the beginning of this century. In both countries, national production may have increased. However, one thing is certain, namely, that population growth had outstripped any growth in national income.

In **Egypt, agriculture** continued its expansion trend (which began during the 19th century) up to 1913. [18] Cultivated area rose from 5.2 million feddans [19] in 1900 to 5.3 million in 1913, and cropped area, from 7.2 million feddans to 7.7 million, respectively. Accordingly, the crop-land ratio increased from 1.4:1 in 1900 to 1.5:1 in 1913. [20] Agricultural productivity per unit of land also rose by about 5 per cent between 1900 and 1913. [21] This agricultural growth was due to the improvement and extension

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(17) By the end of World War II, India and Egypt were in the midst of their economic underdevelopment, as will be discussed below. For details on the general characteristics of this problem, see Chapter I above.

(18) See A.F. Sherief, «General Trends of Growth of the Agricultural Sector in the Last Quarter Century», **Memo. No. 131**, the National Planning Commission, (Cairo, 1959), (in Arabic), pp. 3-4.

(19) 1 Feddan = 1.038 acres.

(20) See M.M. El-Imam, «A Production Function for Egyptian Agriculture, 1913-1955», **Memo. No. 259**, The Institute of National Planning, (Cairo, Dec., 1962), p. 36, Table 1.

(21) Sherief, **Op. cit.**, p.4.

of the irrigation system, the improvement of agricultural methods, a developed transport and communications network, and favourable terms of trade for agricultural products and an increasing foreign demand for cotton. [22]

However, population was steadily growing. It increased from 10.1 millions in 1900 to about 12.1 millions in 1913. [23] This increase in population reflected itself on the cultivated and cropped areas per capita. Cultivated area per capita declined from 0.52 feddan to about 0.44, and cropped area per capita, from 0.71 feddan to 0.65. Thus, the pressure of people on land started to be felt, particularly if one takes into account the labour-saving developments in irrigation and cultivation methods and techniques. [24]

By 1913, virtually all available land had been reclaimed. Accordingly, the cost of extending cultivation began to rise sharply. The costs of cultivation also began to increase. This is because in order to keep the productivity per unit of land as it was, let alone the pressing necessity of increasing it, fighting plant diseases, fertilizing (to compensate for soil exhaustion), and drainage (to lower the water-table) had to be done. However, though about £E 33 [25] million were spent on irrigation and drainage works alone from 1927 to 1937, [26] total cultivated area actually declined from 5.5 million feddans in 1927 to 5.3 million in 1937. Total cropped area also decreased from 8.7 million feddans to 8.5 million between 1927 and 1937. [27] This gave a corresponding crop-land ratio of 1.6:1, in each year. The cause of

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(22) For details, see, e.g., Issawi, **Egypt in Revolution : . . . . . ., Op. Cit.,** Hershlag, **Op. Cit.; A.E. Crouchly, The Economic Development of Modern Egypt,** (London, 1938), and his «A Century of Economic Development, 1837-1937», **L'Egypte Contemporaine,** (March, 1939); and A. Fawzi, **The Economic and Financial Development of Egypt in Momern Times,** (Cairo, 1956), (in Arabic).

(23) See, e.g., El-Imam, **Op. cit.;** and Hershlag, **Op. cit.**

(24) See, e.g., Issawi, **Egypt in Revolution : . . . . . ., Op.cit.;** and Crouchly, **The Economic Development of Modern Egypt, Op. cit.**

(25) 1 £E = £ 1. 0s. 6d. parity.

(26) Issawi, **Egypt in Revolution :..., Op. cit.,** p. 35.

(27) See El-Imam, **Op. cit.,** p. 36, Table 1; and U.N. **The Development of Manufacturing Industry in Egypt, Israel, and Turkey,** (New York, 1958), p.15.

this reverse trend probably was that some marginal and inadequately drained land went out of cultivation. [28]

From 1938 to 1945, gross investment in agriculture amounted to about £ E 30.5 million or about 22 per cent of the total national investment of £ E 141 million during this period. [29] Accordingly, cultivated area increased from 5.3 million feddans in 1938 to about 5.7 million in 1945, and cropped area, from 8.5 million feddans to about 9.2 million. [30] However, productivity per unit of land had not shown the same trend. According to a recent study, on average, it had not changed at all over this period. [31]

While total cultivated and cropped areas and productivity per unit of land had not considerably changed since 1913, population steadily increased. In 1927, it reached 14.2 millions and increased to 15.9 millions in 1937, 16.3 millions in 1938 and 18.5 millions in 1945. [32] Accordingly, cultivated and cropped areas per capita steadily declined to reach in 1945 to 0.31 feddan and 0.49 feddan, respectively. With an average of more than 80 per cent of total population living in rural areas, [33] one can safely say that cultivated area per rural inhabitant was less than 0.5 feddan, and cropped area per rural inhabitant, just over 0.5 feddan.

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(28) U.N. **The Development of Manufacturing Industry : ...., Op. cit.** p. 15.

(29) A.F. Sherief, «General Trends of Growth of the Egyptian Economy in the Last Quarter Century», **Memo. No. 121,** the National Planning Commission, (Cairo 1959), (in Arabic), p.10. The data adapted are at current prices.

(30) See El-Imam, **Op. cit.,** pp.35-36; Sherief, «General Trends of Growth of the Agricultural Sector....», **Op.cit.** Table 7; and Y. Mielad, «Trends of Expansion of the Agricultural Production in the Egyptian Region», **Memo. No. 164,** the National Planning Commission, (Cairo, 1959), (in Arabic), p.32.

(31) See M.M.El-Imam, «Developments in Cropped Production in Half a Century», **Memo. No. 152,** the National Planning Commission, (Cairo 1959), (in Arabic), particularly p.23, Table 3.

(32) For 1927 and 1937 figures, see United Arab Republic, Dept. of Statistics and Census, **Statistical Pocket Book for the Egyptian Region,** 1958, (Cairo, 1960), p.6., Table 1; and for 1938 and 1945 figures, see A. Sherief, «General Trends of Growth of the Egyptian Economy...», **Op. cit.,** p. 5, Table 1.

(33) See El-Imam, «Developments in Cropped Production..», **Op. cit.,** p.21.

This clearly shows the heavy pressure of people on land by 1945, which seriously affected the pattern of land ownership and hence (through polarization) [34] productivity per unit of land. The units less than one feddan increased in area from 430,000 feddans in 1916 to 700,000 feddans in 1936. Their owners also increased from 1 million to 1.7 million. [35] However, the area and ownership of large estaes (50 feddans and more) substantially increased — against the declining of the middle group (5-50 feddans). [36] This tendency inflated the prices of land and greatly increased its rental. [37] So, with polarization of ownership at the lower end of the scale and growth of big absentee landlords at the upper end, and high rates of rental, net income of the fellah was desperately low during the period 1916-1945, particularly towards its end.

From 1939 to 1945, though agriculture was still the predominant sector of the economy, its value added at factor cost at constant 1939 prices steadily declined from £E 54 million in 1939 to £E 44 million in 1945. Its share in total value added of the commodity producing sectors (agriculture and industry) declined from about 80 per cent in 1939 to 70 per cent in 1945. [38] Agricultural output fell sharply during this war period, dropping by approximately 25 per cent. [39] This was mainly due to two basic factors : 1) the shortage of fertilizers during the war ; and 2) a marked reallocation of land away from cotton (which was difficult to export because of the disruption of shipping routes) to the production of foodgrains (the demand for which greatly increased because of population growth and the large number of Allied troops stationed in the country). Though the area devoted to wheat, maize and rice was substantially increas-

(34) As well as excessively large estates.
(35) Hershlag, **Op. cit.,** pp. 120 and 216.
(36) Hershlag, **Op. cit.,** p.216.
(37) Hershlag, **Op. cit.,** p.218.
(38) See B. Hansen and D. Mead, «The National Income of the U.A.R. (Egypt), 1939-1962», **Memo No. 355,** The Institute of National Planning, (Cairo, 1963), **p.3,** Table 1.
(39) See El-Imam, «A Production Function . . », **Op.cit.,** p.12.

ing throughout the period,[40] by 1945, Egypt turned to be net importer of foodgrains, particularly wheat and wheat flour. In 1945, e.g., the per capita consumption of wheat was 10 Kgs. more than the per capita production of wheat (64 Kgs.). The urban per capita deficiency was as large as 44 Kgs. (with consumption, 108 Kgs., and production, 64 Kgs.).[41] So, with an increasing rate of population growth, agriculture was not in fact stagnant. it was actually declining.

On the other hand, **industry,** though expanding after the 1930's fiscal autonomy,[42] could not compensate the decline in agriculture. Up to World War I, the policy of discouraging industry continued. However, few food processing, textiles and building materials industries were in existence. As for mining, only phosphates showed a notable increase in production. The general picture on the eve of the War was hardly encouraging. This was mainly due to the "open door" trade policy (imposed on Egypt since 1842) with only 8 per cent **ad valorem** tariff and an equal excise tax on industrial production, together with a passive role of the government. Consequently, most of the wealthy Egyptians preferred to invest exclusively in the purchase of cultivated land, which came to be known as "the bottomless sink of Egyptian capital."[43]

During World War I, the need for industrialization began to be realized simply because of the shortage of imported manufactured goods. Several minor industries were established, some of which survived the war. By 1920, the industrial sector was still very limited. During the 1920's, some measures were taken to promote industry. Notably among these measures was the

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(40) El-Imam, «A Production Function...», **Op. cit.**, pp. 12-16. Dr. El-Imam states that the area devoted to these crops rose from 38 per cent in 1937 to 45 **per cent** in 1944.

(41) Sherief, «General Trends of Growth of the Agricultural Sector....», **Op. cit.**, pp. 14-15.

(42) After the expiring of the international conventions regarding Egyptian trade and the termination of the Capitulation system. For detailed account on this, see Hershlag, **Op. cit.**

(43) See, e.g., Issawi, **Egypt in Revolution :...., Op. cit.,** p.44.

foundation of the all-Egyptian Misr Bank as a private concern to foster industries, (since the existing banks were mainly to finance trade and to extend mortgage loans to landowners).[44] Other important measures were the development of transport and communications, and increasing government expenditures on health and education.[45] Apart from this encouraging step, no direct measures had been taken during this period mainly because of the international conventions imposed on Egypt, particularly with respect to tariffs.

In the 1930's, the urge for industrialization renewed. The basic factor behind this was the regaining of fiscal autonomy. The tariff reform was introduced to protect the Egyptian infant industry. Despite the existance of most of the economic difficulties of an underdeveloped economy, discussed in Chapter I above, large-scale industrialization began in Egypt. This industrial expansion was based on two main factors : 1) the growth of population and the corresponding increase in urban population ; and 2) import substitution which was largely confined to non-durable consumer goods.[46]

Industry was further stimulated during World War II. This was mainly due to drastic reduction in imports, large-scale expenditures of Allied troops stationed in Egypt and technical and training assistance of the Middle East Supply Centre. Several industries considerably expanded. This was particularly so in the case of textiles, preserved foods, leather, glass, cement and other building materials, chemicals and petroleum. New industries were also established, such as the dehydration and canning of vegetables, rubber goods, jute processing, tools, and a wide variety of chemicals and pharmaceuticals.[47]

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(44) See Landes, **Op.cit.;** and Hershlag. **Op.cit.**
(45) For more details see, e.g., Issawi, **Egypt in Revolution :..., Op. cit.**
(46) For more details, see U.N. **The Development of Manufacturing Industry.., Op. cit.**
(47) For details, see A.F. Sherief, «The Statistics of Growth of Industry and Power in the Last Quarter Century», **Memo No. 127,** the National Planning Commission (Cairo, 1959), (in Arabic), pp.1-10, Tables A-1 to A-9. This memo. is appendix No. (1) to memo. No. 121, cited above.

Impressive as it may seem, industrial expansion was on the whole quite limited, if not ineffective. Industrial contribution to national income was very small. It had not even reached 10 per cent by 1945. Manufacturing and mining probably accounted for less than 5 per cent of G.N.P. by 1927. In 1939, its share in net national income at factor cost at 1939 prices was 7.1 per cent. In 1945, it rose to about 9.8 per cent. Its share in total value added of the commodity producing sectors increased from about 20 per cent in 1939 to about 30 per cent in 1945 — at factor cost at 1939 prices.[48] This small share of industry might be due, among other well-known economic and social difficulties, to the passive role of the government in general, and the small capital invested in industry in particular.

For example, in 1932, gross investment in industry and electricity was £E 1.5 million or about 13 per cent of national gross investment of £E 11 million in that year. In 1945, it rose to £E 6.5 million or about 19 per cent of the national total of £E 35 million in that year.[49] This investment was mainly private. Though industry had an increasing share of national capital formation (which was itself relatively small, around 7-9 per cent of G.N.P., it remained largely "capital starving." Fixed capital in industry was quite small for a serious drive to industrialize the country. This was the situation at a time when the Egyptian foreign reserves were increasingly accumulating to reach a historical figure of about £400 million by 1945.[50]

With respect to **foreign trade,** the situation was not very encouraging. After a steady growth up to 1913, the total value of trade sharply fluctuated with a declining trend during the 1920's and 1930's, and ended up with a deficit problem which lasted up to (and including) recent years. In 1913, the total value of trade

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(48) See for 1927 figure, Issawi, **Egypt in Revolution :..., Op. cit.,** p. 44 and for 1939 and 1945 figures, Hansen and Mead, **Op.cit.,** p. 3, Table. 1.

(49) See **Sherief,** «General Trends of Growth of the Egyptian Economy..», **Op. cit.,** p. 10, Table 5.

(50) See Issawi, **Egypt in Revolution :..., Op. cit.,** p. 39; and National Bank of Egypt, **Economic Bulletin,** Vol. 1, No. 1, (1948), p. 10.

reached £ E 60 million, in comparison with £ E 37 million in 1901. From 1919 to 1924, the annual averages of imports and exports were £ E 69 million and £ E 74 million, respectively. However, the World Depression, together with a stagnant agriculture, caused a sharp decline in total trade and a growing deficit from 1938 onwards. Thus, in 1931-35, the annual averages of imports and exports were nearly equal, with £ E 29.9 million and £ E 30.4 million, respectively. During 1936-37, the average annual surplus increased to £ E 2 million. But by 1938, the deficit problem appeared, with an average annual deficit of £ E 17.3 million from 1939 to 1945. (51)

The fluctuating nature and the declining trend of Egypt's foreign trade during the period under study were mainly due to the fluctuation in cotton prices (52) (whose contribution was on average more than 80 per cent of the annual value of total exports) in particular, and the deterioration of the Egyptian terms of trade in general. (53) Growth of population, small and infant industry, stagnant agriculture and World Depression were the main underlying factors behind the precarious position of Egypt's foreign trade.

During this period, there were some structural changes in trade composition. Notably among them were the disappearance of wheat from the export items and its growing place in the import items ; the appreciable decline of textiles in the imports side and its appearance in the exports side ; and the increasing imports of machinery, spare parts and raw materials. However, by the end of the period (1945), the share of cotton in total exports was still about 80 per cent, and the share of manufac-

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(51) See G. Said, **The Road to Socialism,** (Cairo, 1962), (in Arabic), pp.-230-33; Fawzi, **Op. cit.,** pp. 148 and 180; and Hershlag, **Op. cit.,** pp. 222-23.

(52) Cotton prices fluctuated from 21.3 talaris (1 Talari = 20 per cent of £E) per cantar, (1 cantar = 50 kgs.) in 1913-17, to 46.5 in 1918-22, 23.4 in 1923-27. 19.6 in 1928-32, 12.7 in 1933-37, 15.3 in 1938-42, and 37.4 in 1943-47. See Issawi, **Egypt in Revolution:...,** **Op. cit.,** p. 28, Table 1.

(53) Given 1938 = 100, the terms of trade index was 123 in 1921, 259 in 1925, 159 in 1926, 142 in 1929, 93 in 1931, 98 in 1937, and 80 in 1945. See Sherif, «General Trends of Growth of the Egyptian Economy..», **Op.cit.,** p.8, Table 3.

tured goods for final consumption in total imports was still the largest.[54]

With respect to **public finance,** World War I eased the foreign public debt problem, and during World War II (in 1943) a vast refunding operation took place. As a result of this operation, the old Sterling 3½-4 per cent loans were replaced by Egyptian 3¼ and 2¾ per cent loans. Thus, Egypt's foreign public debt was converted into a domestic one.[55] Also, the structure of the government revenue and expenditure considerably changed, compared with those of the past three or four centuries. On the revenue side, even before the fiscal autonomy of 1930, the revenue from customs and excise duties considerably increased. After the 1930's tariff changes, customs and excise duties were by far the first source of revenue. It constituted about 40 per cent of an average annual total revenue of about £E 40 million, by the end of the 1930's. Taxes on land and buidings came as a poor second, with about 16 per cent of that total. The contribution of income tax to that total was very small — about 7 per cent.[56]

On the expenditure side, the servicing of public debt substantially decreased from about 50 per cent of total expenditure in 1900, to about 10 per cent in 1939 and about 3 per cent in 1945. Conversely, defence expenditure increased from 6 per cent in 1913 to 12 per cent in 1930's and about 20 per cent in 1945. A sharp rise, but relatively still a small one, occurred in the expenditure on education, health and social services. For example, the share of education in total expenditure rose from about 1 per cent during the first decade of the century to about 10 per cent by 1945.[57] During this forty-five-year period, the striking and surprising feature was the existence of relatively large budget surpluses. It amounted to £E 17 million in 1919 and reached the figure of £ E 40 million in 1930.[58] This, together

(54) For details, See Said, **Op. cit.**, p.p. 236-40; and Hershlag, **Op. cit.**, pp. 222-24.
(55) See Issawi, **Egypt in Revolution :. . . ., Op. cit.**, p.42.
(56) See, e.g., Hershlag, **Op. cit.**, pp. 214-15.
(57) See Issawi, **Egypt in Revolution :..., Op. cit**, p. 43.
(58 Hershlag, **Op.cit.**, pp.213-15.

with £400 million foreign reserves, suggests that it was not the scarcity of investible funds but the lack of government initiative which laid at the root of the country's sluggish pace of economic development.

So, a stagnant and (during the last years of this period, namely, 1939-45) declining agriculture, a small and infant industry, an unfavourable foreign trade, a rapid population growth and a lack of initiative on the part of the government combined together to produce a more or less stagnant national output. This general result is confirmed by a recent study undertaken by Professors Bent Hansen and Donald Mead. [59] According to this study, net national income at constant 1939 market prices had not on average changed during the period 1939-45. The average annual rate of change for this period was zero. With an average annual rate of growth of population at the level of 1.2-1.8 per cent, the inevitable conclusion is that a sharp decline in per capita real income actually occurred during this period.

This conclusion has independently been reached in another study by Dr. Sherief. [60] According to this study, gross national income at constant 1954 market prices had not significantly changed during the period 1913-1945. It was £E 476 million in 1913, £E 457 million in 1921, £E 579 million in 1939, and £E 523 million in 1945. With the corresponding population figures, the gross national income figures give per capita incomes of £E 36, £E 33.5, £E 34.5 and £E 28 for the four years respectively. Accordingly, one may infer that the standard of living of the average Egyptian, measured by per capita real income, actually declined by the end of the period under study (1900-1945), compared with that at its beginning. By 1945, virtually all the basic features of economic underdevelopment, discussed in Chapter 1 above, were in fact existing in Egypt.

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(59) See Hansen and Mead, «The National Income of the U.A.R. : . . . .», **Op. cit**, Particularly pp. 2-3 and 22.

(60) See Sherief, «General Trends of Growth of the Egyptian Economy. . . .», **Op. cit.**, pp. 1-5.

In **India,** economic conditions were more or less the same as those in Egypt during the period under discussion, with some differences in degree rather than in substance. The scant statistical information available on **agriculture** clearly shows its stagnant state during most of the period, with commercial crops rapidly growing largely at the expense of food crops. This change in crop composition, together with population growth, made the decline of per capita output of food crops unescapeable.

During the period 1893/94-1895/96, average annual production of all-India food crops was 73.9 million tons. It declined to 71.5 million tons in 1896/97-1905/06. Then, it increased to 74.0 million tons in 1906/07-1915/16. Then, it declined to 73.3, 69.6 and 69.3 million tons in 1916/17-1925/26, 1926/27-1935/36, and 1936/37-1945/46 respectively.(61) The arithmetic mean of the annual estimates for the period as a whole (1893/94-1945/46) is 71.7 million tons which is smaller than the estimate for the starting period (1893/94-1895/96 by 2.3 million tons. These data suggest that production of food crops was in fact declining, particularly since World War I. This downward trend particularly applied to the rice crop which constituted roughly half of total production of food crops. Upward changes in the production of other crops such as wheat have failed to alter this trend.(62)

On the other hand, the production of commercial crops increased considerably. The largest increases were in groundnut, cotton, sugar cane and tea. On the basis of production indexes for food crops, commercial crops and all crops, constructed by weighing volume of output with average prices for each crop during the period 1924/25-1928/29 and setting the initial period

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(61) George Blyn, «The Agricultural Crops of India, 1893/94 to 1945/46 : A Statistical Study of output and Trends», **Unpublished Thesis,** (University of Pennsylvania, 1951), cited in Thorners, **Op. cit.,** p.104.

(62) For details and supporting statistics, see S. Sivasabramonian, «Estimates of Gross Value of Output of Agriculture for Undivided India, 1900/01 - 1946/47», Table 4, in V.K.R.V. Rao and others (eds), **Papers on National Income and Allied Topics,** Vol. 1, (London : Asia Publishing House, 1960), and Thorners, **Op. cit.,** pp. 104-05.

1893/94-1895/96 at 100, commercial crops production nearly doubled by the end period 1936/37-1945/46. Its index reached 185 — an increase of 85 per cent over the level of production in the initial period. In contrast, food crops production index declined to 93 by the end period — a percentage decline of 7, relative to the level of production in the initial period. The index of all crops, however, increased to 110 — an increase of only 10 per cent.(63) This over-all increase was completely accounted for by the large increase in commercial crops output which was partly achieved by reducing food crops output.(64)

This very slow growth of agricultural output was at a time when population growth was quite substantial. Population growth proceeded at an increasing rate, particularly after World War I. The average rate of population growth per decade from 1901 to 1941 was 6.4 per cent. But, the average rate of increase in total crop production per decade during this period was only 2.3 per cent. Thus, the annual averages of rates of change of population and crop output were 0.64 per cent and 0.23 per cent, respectively. This means that population has nearly grown three times as fast as total crop output. Consequently, per capita figures of 'food crops' and 'all crops' outputs had considerably declined. Per capita food crops output fell by 32 per cent, and per capita all crops output, by about 20 per cent from 1893/94-1895/96 to 1936/37-1945/46.(65)

In general, the main factors responsible for this virtual stagnation of agriculture were inadequate irrigation works, small increases in total cultivated and cropped areas, traditional methods of cultivation, unfavourable taxation system, lack of financial facilities, unfavourable land tenure arrangements, and passive role of government towards agriculture. It is obvious that these factors are very much interrelated. The irrigation

(63) Blyn, **Op. cit.,** cited in Thorners, **Op. cit.,** p.105, Table 2.
(64) This may be supported by the fact that the ratio of nonfood to food crop output increased from about 20 per cent in the initial period to about 50 per cent in the end period. See Thorners, **Op. cit.,** p. 105.
(65) Thorners, **Op. cit.,** pp. 104 and 106.

works implemented during this period, though encouraging, were relatively very small in terms of their contribution to the irrigation network required and as a percentage in total public expenditure. In 1937/38, total public expenditure rose to more than 260 per cent, relative to its level in 1898/99. Total public investment (gross of depreciation) rose to about 200 per cent. However, the share of public investment in total public expenditure was small and declining. It was 17.9 per cent in 1898/99 and 14.5 per cent in 1936/38. From these small shares, irrigation works only accounted for 12 per cent and about 13 per cent, respectively.[66] During World War II, the share of irrigation works, though increased in absolute terms, proportionately remained small, (under 15 per cent).[67] Consequently, total cultivated and cropped areas did not considerably rise. From 1900 to 1945, the increases in cultivated and cropped areas were in the order of 10 per cent and 20 per cent, respectively.[68]

Lack of improved techniques and implements, poor livestock, heavy indebtedness, inadequate and ineffective credit system, and excessive fragmentation of land holdings were the main features of rural life.[69] The government did practically nothing to improve this situation. Once the land revenue policies were fixed, the attitude of the government towards agriculture was largely "hands-off." However, by demanding its revenue in cash and in full, it, indirectly, diverted agricultural production towards cash crops, increased rural indebtedness and strengthened the position of moneylenders.[70] Poor and burdened with debts, the cultivators had neither the initiative, nor the means to increase their productivity. Yields per unit of land (acre)

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(66) For the data upon which these percentages are based, see M.J. Thavaraj, «Capital Formation in the Public Sector in India : A Historical Study, 1898-1938», in Rao and Others, **Papers on National Income....**, **Op. cit.**, p.219, Table 3 and p.224, Table 7.

(67) Thavaraj, **Op. cit.**, p. 230.

(68) For the data upon which these percentages are based, see Sivasabramonian, **Op. cit.**, Table 3; and Thorners, **Op. cit.**, p.104.

(69) For details, see , e.g., Thorners, **Op. cit.**, and Gadgil, **The Industrial Evolution Of India....**, **Op. Cit.**

(70) See e.g., Gadgil, **The Industrial Evolution of India..**, **Op. cit.**, pp. x-xxi.

for all principal crops were declining throughout the period, particularly from 1930 onwards. From 1931/34 to 1948/51, the range of decline varied between 1.9 per cent and 24.4 per cent. (71)

In contrast, **industry** was, as will be discussed below, expanding up to and during World War I, surviving the World Depression and further expanding during World War II. Statistical data on industrial production during this period are virtually absent. (72) Nevertheless, from the scant information available, one can safely say that industry by 1945 remained relatively small in terms of its contributions to national income and manpower mainly because of its very limited and small base in 1900, and the increasing foreign competition in the Indian market throughout the period, as will be mentioned below.

Professor D. Thorner goes even further to suggest that any expansion in modern industry had in fact been offset by the decline in handicraft industries. In discussing the industrial structure during the period 1881-1931, he argues, "At least, a plausible inference from our figures is that whatever new employment was created by the introduction of textile mills, rice dehusking plants, and other modern industrial establishments may have been roughly offset by an equivalent falling off in handicrafts." "It is indeed a remarkable phenomenon, and one worthy of further investigation," he concludes, "that agricultural production was reported as virtually constant, and the industrial structure of the economy as practically stationary, during a half century when India's population rose by nearly one hundred million." (73)

However, from the rough and scarce data available, it is not unreasonable to assert that throughout the period, and particularly

(71) For details, see M.L. Dantwala, «Trends in Yields Per Acre», in N.V. Sovani and V.M. Dandekar, (eds.), **Changing India,** (London : Asia Publishing House, 1961), pp. 21-23.

(72) See on this point, e.g., Morris and Stein, **Op. cit.,** Thorners, **Op. cit.,** and Gadgil, **The Industrial Evolution of India . . . , Op. cit.**

(73) Thorners, **Op. cit.,** p.218.

since 1930, modern industry was expanding at a rate more than the rate of decline of the remaining handicraft industries. The constant share of industry in total labour force during this period (about 10 per cent) [74] may be explained by the relative capital-intensive nature of the newly established industries. At the beginning of this period, industry was very limited, unprotected and mainly concentrated in consumer goods production, particularly textiles and jute, as well as some coal and other mining works. [75] By 1913/14, though steadily developing,[76] industry was very weak, particularly in face of foreign competition. World War I gave industry some stimulus. But, by 1916/17 foreign competition began to be seriously felt, particularly from the Japanese, the Germans and the Americans — against not only Indian products but also British products in the Indian market.

Consequently, the discriminatory protection came into existence. However, it had practically no effect until the late 1920's when the production of cotton textiles, jute, coal, sugar and other new industries (notably iron and steel) [77] reasonably increased to substitute part of the imports. In 1931, the general scale of duties on piece-goods stood at 25 per cent on British goods and 31.5 per cent on non-British, with particularly high duties on artificial silk piece-goods. But, these tariffs were not quite sufficient as a protective tariff wall. Foreign imports, particularly the Japanese, continued to dominate the Indian market. So, the revenue duty was raised on non-British goods to 50 per cent in 1932. [78] This protective measure certainly gave Indian industry new impetus and enabled it to survive the effects of the World Depression. Cotton piece goods steadily increased

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(74) The percentage shares of industry in total 'male' labour force were 11, 10, 9 and 9 per cent; and in total 'female' labour force, 12, 11, 10 and 9 per cent, for 1901, 1911, 1921 and 1931, respectively. See Thorners, **Op. cit.**, pp. 78-81.

(75) For details, see Gadgil, **The Industrial Evolution of India..., Op. cit.**, pp. 107-15.

(76) For details, see Gadgil, **The Industrial Evolution of India..., Op. cit.**, pp. 238-995; where he asserted that the existing industrial capacity had nearly trebled between 1900 and 1913/14.

(77) For more details, see Gadgil, **The Industrial Evolution of India..., Op. cit.**, p. 271.

(78) Gadgil, **The Industrial Evolution of India...., Op. cit.**, pp. 251-58.

from 1,757 million yards in 1929 to 3,369 million in 1938. Coal production (after a slight decline from 1931 to 1935) increased from 23 million tons in 1929 to 28 million in 1938. Finished steel increased from 0.4 million tons to 0.7 million, during the same period. (79)

World War II gave further stimulus to Indian industry. However, the net effect was not very impressive. Taking 1946 as 100, the general industrial production index was 95 in 1939 and 101 in 1940. Coal index was 94 and 99; steel, 96 and 97; cement, 85 and 84; chemicals, 77 and 99; sugar, 78 and 131; cotton textiles, 102 and 102; and jute manufactures, 108 and 113, respectively. (80) The general increase in industrial production was not a large one. But, while the conventional industries such as textiles and jute were relatively declining, chemicals, iron and steel, and cement were rapidly expanding. However, this growth of the latter industries was mainly due to the War conditions and requirements, and to the fact that the production of these industries started in 1939 from a rather small base. In fact, heavy chemicals, machinery and other basic industries were either still in their very infancy, or not at all in existence by the end of the period (1945). (81)

In sum, the period under study, though witnessed a reasonable expansion in industry, did not actually experience a structural change in the relative shares of the main sectors of the economy. In general, industry was still playing too small a part in the national production. Throughout the period, the share of industry in national income and manpower did not exceed about 10-11 per cent. (82)

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(79) Gadgil, **The Industrial Evolution of India . . . , Op. cit.,** p. xix.
(80) See Gov. of India, Central Statistical Organization, **Statistical Abstract of the Indian Union,** Annual Series, 1950 and 1955/56 issues, (Delhi, Manager of Publications).
(81) For more details, see Gadgil, «Indian Economic Organization,» in Kuznets and Others, **Op. cit.,** particularly p. 458.
(82) See Thorners, **Op. cit.,** pp. 78-81; and Gadgil, **The Industry Evolution of India . . . , Op. cit.,** p. 146.

With respect to **international trade,** the main features remained largely the same throughout the period — with overall surplus in trade balance almost every year. Up to 1939, the main import items were articles wholly or mainly manufactured (about 61 per cent of total imports in 1938/39), raw materials and articles mainly unmanufactured (22 per cent), and food, drinks and tobacco (16 per cent). The main export items were raw materials (about 45 per cent of total exports in 1938/39), manufactured goods (30 per cent), and food (23 per cent). During World War II, there were some structural changes in trade composition. In 1943/44, the relative shares of the main import items, mentioned above, were 38 per cent, 54 per cent and 6 per cent, respectively. The relative shares of the main export items were 26 per cent, 51 per cent and 23 per cent respectively.[83] These changes might partly be due to the particular circumstances of this war period. They may also be considered as an indication of the industrial growth during this period. However, throughout the period (1900-1945), population growth, together with a virtually stagnant agriculture, made itself felt through increasing food imports and substantial declining in food exports. This was particularly so after Burma's separation from India in 1936, because it was the main rice producing area of India.[84]

In the field of **public finance,** the main elements of government revenue and expenditure remained more or less as they were during the second half of the last century. Apart from revenue policies and small investments in public works, the government continued its passive role towards economic activities. From land revenue, customs duties and trade surplus, the government mobilized increasing revenues, most of which however were spent on administration, military purposes and services of increasing public debt.[85] For example in 1900/01,

(83) Gov. of India. **Annual Statement of the Sea-borne Trade of British India, Vol. I,** 1939, 1943 and 1944 issues.

(84) For details on this point, see Dantwala, **Op. cit.;** and Thorners, **Op. cit.**

(85) In 1930, public debt reached £916 million or about Rs. 1.220 crores. I Rupee = 1.5 s, and I crore = 10,000,000. For the size of public debt, see e.g., H. Lamb, **Op. cit.,** pp. 489-91.

from a total expenditure of about Rs. 103 crores, only Rs. 19 crores (or about 18 per cent) were spent on all sorts of public works. In 1937/38, from a total expenditure of about Rs. 248 crores, only Rs. 36 crores (or about 14 per cent) were spent on public works.[86] From this small share of public works, irrigation accounted for only 13 per cent, as mentioned above.

So, with a stagnant agriculture, a small and infant industry, a passive role of government towards economic development, and a steadily growing population, the probable result was a decline in the standard of living of the average Indian by 1945, relative to its level in 1900. However, there are three different estimates of the changes in per capita real income during this period. One is by S. Patel, the other, by K. Mukerji, and the third, by H. Arora and K. Iyengar.[87] The first estimate shows a decline of about 9 per cent. The second and third show increases of about 12 per cent and 39 per cent, respectively. Due to the state of statistical data during this period, the three estimates can not be anything but very rough and approximate. Strong overestimations in the second and third estimates are recognized by the calculators themselves.[88] In this situation of contradiction and dearth of more reliable data, one can not make a definite statement about the order of per capita real income during this period. However, if one considers the very rough nature of these estimates (both in coverage and in accuracy, which may lead to marginal errors of the same order of the estimated changes, if not more), and the fact that per

(86) See Thavaraj, **Op. cit.,** p. 219.

(87) For methods and assumptions, see S.J. Patel, «Long Term Changes in Output and income in India : 1896-1960», **The Indian Economic Journal,** Vol. V, (Jan, 1958); K. Mukerji, «A Note on the Long Term Growth of National Income in India : 1900/01 to 1952/53», in V.K.R.V. Rao and Others, **Papers on National Income Allied Topics, Vol. 11,** (London, Asia Publishing House, 1962); and H.C. Arora and K.R.R. Iyengar, «Long Term Growth of National Income in India, 1901-1956», in Rao and Others, Vol. 1, **Op. cit.,** For a detailed discussion on earlier estimates, See V. Bhatt, **Aspects of Economic Change and Policy in India,** (Bombay : Allied Publishers, 1963).

(88) See Mukerji, **Op. cit.,** pp. 20-23; and Arora and Iyengar, **Op. cit.,** pp. 215 and 217. Arora and Iyengar estimated that per capita income at 1948/49 prices rose from Rs. 181 in 1901/02-1905/06 to Rs. 252 in 1946/47-1950/51.

capita agricultural output was steadily declining throughout the period, the change in per capita real income is more likely to have been a decline rather than an increase.

From the above account, one can see how India and Egypt became to be economically underdeveloped. By 1945, the two countries reached "acute" state of economic underdevelopment, with agriculture constituting more than 75 per cent of total economic activities, a small and infant industry (compared with the developed countries), and trading features of a primitive primary-producing economy. With population growth proceeding at a rapid rate and agriculture virtually stagnant, the Indian and the Egyptian standards of living appreciably declined by the end of the period. Bearing in mind that their standards of living were fairly low at the beginning of this period, one can imagine how desperate the economic conditions of the average individual in India and Egypt were by 1945.

II — ECONOMIC STRUCTURE AND CHANGES DURING 1946-50.

By 1945, population was already an acute problem in India and Egypt in the sense that its size was disproportionate in relation to the available economic resources in the two countries, as discussed in section I above. In 1946-50, (89) population continued increasing at an average rate of 1.3 per cent yearly in India, and 2.1, in Egypt, as shown in Table III.1 below. The average

(89) Needless to say, this period is far from normal. As the immediate five years after the War, they were re-construction years in almost every country in the world, with a large national and international demand for all sorts of final intermediate and raw-material goods. Besides this international factor there were other factors which further contributed to the abnormality of the period in India and Egypt, Important among these factors were political independence and partition of the country in 1947, in the Indian case, and the Palestine War in 1948 and the cotton boom towards the end of the period, in the Egyptian. However, this abnormality could not be an execuse of not discussing in some detail the structure and changes of the two economic during the five years immediately before the beginning of the two planning experiences. The reason behind this attempt, as mentioned at the beginning of this chapter is to present the over-all economic picture, according to which the Indian and the Egyptian planners had to operate.

annual net addition was about 4.5 million in India, and 0.4 million in Egypt.

TABLE III.1 : **POPULATION**

(In Mns)

Year	**India**			**Egypt**		
	Total	**Index**	**Annual change (%)**	**Total**	**Index**	**Annual change (%)**
1946	339.1	100.0	—	18.8	100.0	—
47	343.6	101.3	1.3	19.0	101.1	1.1
48	348.1	102.7	1.3	19.5	103.7	2.6
49	352.6	104.0	1.3	19.9	105.9	2.1
1950	357.1	105.3	1.3	20.4	108.5	2.5

Sources: For India, R.K. Som, «Population **Trends and Problems in India», in S.N.** Agarwala, (ed.), **India's Population,** (London : Asia Publishing House, 1960), p.59, and K. Mukerji, **Op. cit.,** pp. 22-23; and for Egypt, United Arab Republic, Central Agency for Public Mobilization and Statistics, **Population Problem in the United Arab Republic and its Economic and Social Effects at present and in the Future,** (Cairo, Nov., 1965), (in Arabic), p. 59, and El-Imam, «A Production Function....», **Op. cit.,** p.36.

These average annual rates of population growth were nearly double those estimated for the period 1900-1945. The latter rates were 0.64 per cent for India and 1.2 for Egypt. [90] This fact, together with the detailed demographic features of the Indian and the Egyptian populations presented in Table III.2 below, shows that both countries were experiencing (basically similar) stages of demographic evolution which were characterized by very high fertility rates and a somewhat declining mortality rates. However, from these data, it is clear that the Egyptian population problem was more serious than the Indian. The serious nature of the demographic question in the two countries may be more clearly seen when population is related to the available resources and the levels of performance of the two economies.

(90) See data in Section I above, and Thorners, **Op. cit.,** p.104; and Hansen and Mead, **Op. cit.,** pp. 3 and 8.

TABLE III.2

SOME MAJOR DEMOGRAPHIC FEATURES

	Feature	India	Egypt
I	— National Birth Rate Per 1000	39.9	43.0
II	— National Death Rate Per 1000 ...	27.4	20.9
III	— Infant Mortality Rate Per 1000 ...	185.0	134.4
IV	— % of Total Population in Age Group 0-14	38.3	38.0
V	— Females Per 1000 Males	946.0	1,021.2
VI	— Rural Population as a % of Total Population	82.7	69.0
VII	— Economically Active Population as a % of Total Population	39.9	43.3
VIII	— Illiterate Population as a % of Total Population	83.4	77.0
IX	— Expectation of Life at Birth :		
	i — Males	32.5	41.4
	ii — Females	31.7	47.0

Notes: i — Figures of I to III are the annual averages of 1946-50, and those of IV to IX, for 1951 in the Indian case, and for 1947 in the Egyptian.

ii — Figures of VII exclude the very young (under 5 years of age in the Egyptian case, and under 6, in the Indian), the elderly (over 65 years of age), and the disabled persons.

Sources: For India, Gov. of India, Ministry of Finance, Dept. of Economic Affairs, «India : **Pocket Book of Economic Information,** 1962, (New Delhi, 1962), pp. 14-19, R. Som, **Op. cit.,** p. 62, and S.P. Jain, «Future Growth if Indian Population — An Analysis», in Agarwala, **Op. cit.,** pp.28-34; and for Egypt, United Arab Republic Central Committee for Statistics, **Population Trends in the United Arab Republic,** (Cairo, 1962,), (in Arabic), pp.2-15 and 48-52, Dept. of Statistics and Census, **Vital Statistics,** various issues, and **Statistical Pocket Year- Book of the Egyptian Region, 1958,** (Cairo, 1960), pp. 6 and 14-15, and The Federation of Industries in the Egyptian Region, **The Annual Book, 1958/59,** (Cairo, 1960), pp. 319-22.

In terms of area, Egypt and India present striking contrasts. Egypt has a total area of 1.002 million sq. Km. Only 0.035 million is inhabited area, the rest of the total (or 96.5 per cent)

being desert. [91] In contrast, India has a total (and more or less inhabited) area of 3.270 million sq. Km. [92] With the five years 1946-50 annual average of population as 348.1 million for India, and 19.5 million for Egypt (See Table III.1 above), the average densities of population per sq. Km. of inhabited area in the two countries were 106.5 and 557.1, respectively. These figures give one an idea of what the relative pressures of population on land were in the two countries. [93] Though the density of population in India was less than a fifth of that in Egypt, it remains true that India was among the densely populated countries in the world, during 1946-50. [94] With a virtually constant inhabited area, the density of population in each country steadily increased as population grew. In 1946, it was 103.7 in India, and 537.1 in Egypt. In 1950, it increased to 109.2 and 582.9, respectively, with an increase over the 1946 level of about 5.3 per cent in the Indian case, and about 8.5, in the Egyptian.

The full impact of the population question on the two economies may be examined through national income statistics. National income figures of the two countries in 1946-50 give the general picture of the relative performances of the two economies during this period. According to these data, shown in Table III.3 below, the Indian economy was still experiencing the declining trend (discussed in Section I above) upto and including 1950, with some yearly variations. A possible explanation of this is the structural changes in the economy due to partition in 1947, as will be specified below. The annual average of change in national income (at constant prices) was about — 0.15 per cent, with the largest decline in 1947 and a relative recovery towards the end of the period.

(91) See United Arab Republic, Central Agency for Public Mobilization and Statistics, **The Annual Book of General Statistics of the United Arab Republic : 1952-1964,** (Cairo March, 1965), (in Arabic), p.7.

(92) See Gov. of India, Central Statistical Organization, **Statistical Hand Book of the Indian Union,** No. 4, (New Delhi, May, 1960), p.8.

(93) The regional densities of population in both countries are more representative. The densities of the north regions in both countries were the highest. For details see references cited in footnotes (91) and (92).

(94) For comparativve data, see **U.N. Demographic Yearbook,** various issues,

In contrast, the Egyptian economy considerably recovered throughout this period, after its stagnation during the war period, as discussed in Section I above. However, the national income data reflect the strong erratic fluctuations in the economy, due mainly to terms of trade and crop changes — as will be mentioned below. The annual average increase in national income was around 6.22 per cent, a third of which was due to improved terms of trade.[95]

TABLE III.3 : **NATIONAL INCOME**

Year	India			Egypt		
	Total (Rs. Crores)	**Index (1946=100)**	**Annual Changes (%)**	**Total (£E Mns.)**	**Index (1946=100)**	**Annual Changes (%)**
1946	8,890	100.00	—	534.9	100.00	—
47	8,680	97.65	-2.35	567.9	106.20	6.20
48	8,560	96.34	-1.31	660.4	123.60	17.40
49	8,740	98.26	1.92	673.6	125.90	2.30
1950	8,840	99.39	1.13	667.0	124.90	-1.00

Notes: i — National income = net national output.
ii — The Indian data are at 1948/49 factor prices, the Egyptian, at 1948 market prices. iii - £EI = £1. Os. 6d. = Rs. 13.67.
iv — The Indian data are changed from fiscal-year to calendar-year figures through simple interpolation, e.g., 1964 = (1945/46 figure + 1946/47 figure) /2.

Sources: For India, Mukerji, **Op. cit.**, pp.22-23, and Gov. of India, Central Statistical Organization, **Estimates of National Income: 1948/49 to 1959/60,** (New Delhi, March, 1961), p. 22; and for Egypt, El-Sayed H. Abd-El-Rahman, «A Survey of the Foreign Trade of Egypt in the Post-War Period, With Special Reference to its Impact on the National Economy.» **Unpublished Ph. D. Thesis,** (Cairo Univeristy, 1959), p. 354, Table No. 9.

In terms of sectoral distribution, the share of agriculture in national income, though still the biggest (as shown in Table III.4 below), was drastically declining. It declined from about three-quarters of national income in India, and about half. in Egypt,

(95) See below; and Hansen and Mead, **Op. cit.**, p. 22.

before World War II,[96] to an annual average of only just under a half and over a third in the two countries, respectively. The main cause behind this change was the relative growth of other sectors and the virtual stagnation of agricultural during this period, as will be analysed below.

The most striking feature of the data in Table III.4 is that the percentage sectoral distribution of labour force during 1946-50 in India and Egypt was more or less similar to that prevailing during the pre-war period. The declining agricultural share in national income was produced by more or less the same percentage of total working force (over 70 per cent in India and over 50 per cent in Egypt) as that of the pre-war period, as mentioned in Section I above. Agriculture also provided livelihood for about the same percentage of total population as in the pre-war period. The first of these two facts suggests a lower productivity by worker employed, and the second, a lower standard of living for the agricultural inhabitant -- compared with the pre-war levels and also with the levels of other sectors of the economy. The detailed contrasts between the sectors of each economy, as well as the two economies, with respect to the relative sectoral shares in national income, national working force and population livelihood can be seen from the Table.

Another useful breakdown of national income data is that shown in Table III.5 below. From this table, it appears how small the Indian percentage of national income devoted to fixed capital formation was. The Egyptian percentage partially explains the annual average increase in national income of 6.22 per cent during this period. It is however obvious that both the Indian and the Egyptian investment shares in national income were relatively small in relation to what was required and relative to the investment levels in developed countries. This is particularly so if one realizes that a considerable part of the Indian and the Egyptian investments during this period was pent-up replacement demands from war-time.

(96) For data and references, see Section I above.

TABLE III.4 : **NATIONAL INCOME, NATIONAL WORKING FORCE, AND THE LIVELIHOOD CATEGORIES OF TOTAL POPULATION, BY INDUSTRIAL ORIGIN**

(In Mns.)

Industrial Origin	National Income				National Working Force				Livelihood of Population			
	India		Egypt		India		Egypt		India		Egypt	
	Total (RS.)	%	Total (£E)	%	Total	%	Total	%	Total	%	Total	%
1. Agriculture	42,795	49.1	311	36.3	102,1	71.8	4,215	51.2	249,0	69.8	11,90	62.8
2. Industry & Power	14,817	17.0	138	16.1	15,3	10.8	0,819	10.0	37,7	10.5	1,25	6.6
3. Commerce, Transport & Communicats.	16,211	18.6	232	27.0	8.7	6.0	0,771	9.4	26,9	7.6	1,25	6.6
4. Other Services	13,597	15.6	180	20.9	16,2	11.4	2,413	29.4	43,0	12.1	4,60	24.0
Total	87,420	100.3	861	100.3	142,3	100.0	8,218	100.0	356,6	100.0	19,00	100.0

Notes :
i — National income data are the annual average of the period 1946-50. Working force and livelihood data are for 1951 in the Indian case, and for 1947 in the Egyptian.
ii — National income percentage total does not add up to 100, because national income is net national product gross of net earned income from abroad in the Indian case, and gross national product in the Egyptian.
iii — National income data are at 1948/49 factor prices in the Indian case, and 1954 market prices in the Egyptian.
iv — The Indian working force and livelihood data are based on total population excluding Jammu and Kashmir (4.4 million), some tribal areas of Assam (0.6 million) and 0.25 million for which details are not available.
v — The Egyptian livelihood data are based on total population from 5 years and over, and then assuming that the rates of population growth were more or less the same in the above sectors, the population of "under 5 years" group is proportionately distributed to these sectors.

Sources : For India, Mukerji, **Op. cit.**, pp. 22-23, Central Statistical Organization, **Estimates of National Income..., Op. cit.**, p. 22, and Ministry of Finance, India : **Pocket Book of Economic Information..., Op. cit.**, p. 19 ; and for Egypt Hansen and Mead, **Op. cit.**, p. 8, Dept. of Statistics and Census, **The Annual Pocket Book of Statistics of the Egyptian Region, 1958, Op. cit.**, p. 15, B. Hansen and G.A. Marzouk, **Development and Economic Policy in the U.A.R. (Egypt)**, (Amsterdam : North-Holland Publishing Co., 1965), p. 35, Republic of Egypt, Permanent Council of Public Services, **Services Atlas**, (Cairo, 1957), (In Arabic), pp. 138-39.

The Indian public sector, though had a smaller share in national income relative to that of the Egyptian, contributed more than a third of national investment. The contribution of the Egyptian public sector was only about one-eighth. This was probably due to the increasing consumption of the public sector

TABLE III.5

DISTRIBUTION OF NATIONAL INCOME, CONSUMPTION, AND CAPITAL FORMATION BETWEEN PUBLIC AND PRIVATE SECTORS (In Mns.)

Item	India		Egypt	
	Total (Rs.)	%	**Total (£E)**	%
I — National Consumption				
Public Sector	5,647.5	6.1	77.4	8.9
Private Sector	82,830.0	88.9	685.4	78.7
Total	88,477.5	95.0	762.8	87.6
II — National Investment				
Public Sector	1,692.0	1.8	15.0	1.7
Private Sector	3,008.0	3.2	93.0	10.7
Total	4,700.0	5.0	108.0	12.4
III — National Income (=I+II)				
Public Sector	7,339.5	7.9	92.4	10.6
Private Sector	85,838.0	92.1	778.4	89.4
Total	93,177.5	100.0	870.8	100.0

Notes: i — The Indian data are the annual average of 1949-50, the Egyptian, of 1946-50. The Indian data are at 1948/49 market prices, the Egyptian, at 1954 market prices.

ii — The Indian data are for net national expenditure gross of current account net operations; and private consumption includes **changes in stocks.**

iii — The Egyptian data are for gross national expenditure net of current account operations, and the investment data are gross of depreciation and include changes in stocks.

Sources: For India, S.M. Kansal "On the Deflation of the National Income in India by the Final Expenditure Approach," in Rao and Others, **Papers on National Income..., Vol. I, Op. cit.,** pp. 48-49, and B. Kumar, "Estimates of Domestic Fixed Capital Formation in India, 1948/49 to 1954/55," in Rao and Others, **Vol. I, Op. cit.,** p. 134 and for Egypt, B. Hansen, "The National Outlay of the U.A.R. (Egypt), 1937-1939 and 1945-1962/63," **Memo. No. 377,** The Institute of National Planning, (Cairo, 1963), p. 5, Table 2, reproduced in Hansen and Marzouk, **Op. cit.,** p. 321.

especially during 1948 and after in the Egyptian case, and to the increasing responsibilities of the public sector during 1947 and after in the Indian. The main reason behind this phenomenon was the increased defence expenditure in connection with the Palestine crisis in the former, and political independence and partition (and their structural consequences) in the latter.

The distribution of total investment by industrial origin in the two countries shows the main feature of the period, namely, reconstruction and more emphasis on industrialization. The share of construction and industry in total investment was by far the largest, as presented in Table III.6 below, (see note (i) to this table).

TABLE III.6

DISTRIBUTION OF NATIONAL FIXED INVESTMENT, BY INDUSTRIAL ORIGIN

(In Mns.)

	India		**Egypt**	
Industrial Origin	**Total (Rs.)**	%	**Total (£E)**	%
1. Agriculture	1,062.5	21.9	7.4	8.5
2. Industry & Electricity	597.5	12.3	28.9	33.2
3. Construction	1,152.5	23.8	25.9	29.7
4. Transport and Communications	230.0	4.8	13.3	15.3
5. Other Services	1,800.0	37.2	11.6	13.3
Total	4,842.5	100.0	87.1	100.0

Notes: i — In the Indian case, the share of small industries is included in that of agriculture; and the share of 'other services' constitutes government investment only, which comprises investments in electricity, transport and communications, forestry and irrigation works, among other services. Unfortunately, the disaggregation of these items is not available.

ii — The Indian data are the annual average of 1949-50 and at 1948/49 market prices, and the Egyptian, the annual average of 1946-50 and at current market prices.

iii — The Indian data are net of depreciation, and the Egyptian, gross of depreciation.

Sources: For India, Kumar, **Op. cit.**, p. 134; and for Egypt, A. Sherief, «General Trends of Growth of the Egyptian Economy....», **Op. cit.**, p.10, Table 5.

The finance of this national capital formation in each country is shown in Table III.7 below. From the data of this table, it is obvious how small the share of foreign assistance in total financial resources was. With respect to the relative shares of public and private sectors in financing total fixed investment, it appears from the table that the Egyptian public sector contributed relatively more than the Indian. This fact, together with the information given in Table III.5 above, implies a surplus of financial savings in the Egyptian public sector which, together with foreign borrowing, covered the deficit of financial savings in the private sector. The reverse, however, was more or less the case in India — with a financial deficit in the public sector and a financial surplus in the private sector.

TABLE III.7

FINANCING NATIONAL CAPITAL FORMATION

(In Mns.)

	India		**Egypt**	
Source	**Total (Rs.)**	%	**Total (£E)**	%
I — Domestic Resources:				
i — Public Savings	1,240.0	21.5	40.0	37.7
ii — Private Savings	4,265.0	73.9	60.0	56.6
Total	5,505.0	95.4	100.0	94.3
II — Foreign Borrowing	265.0	4.6	6.0	5.7
Grand Total	5,770.0	100.0	106.0	100.0

Notes: i — The Indian data are the annual average of 1949/50-1950/51 and at 1948/49 market prices, and the Egyptian, the annual average of 1943-50 and at current market prices.

ii — The Indian data are net, and the Egyptian, gross.

Sources: For India, K.V.R. Avadhani, A.K. Ghosh, R.M. Honavar and M.L. Trikha, "Savings in the Indian Union, 1949-50 to 1945-55," in Rao and Others, **Vol. I, Op. cit.,** pp. 120-21 ; and for Egypt, B. Hansen, "The National Outlay of the U.A.R." pp. 4 and 10, and his, "Savings in the U.A.R. (Egypt), 1938/39 and 1945/46 to 1962/63," **Memo. No. 551,** The Institute of National Planning, (Cairo, 1965), Table 1, and Hansen and Marzouk, **Op. cit.,** pp. 225 and 228.

Having discussed the two sides of the basic economic relationship, namely, population and production, we now turn to the relationship itself. Two sets of figures are used : 1) per capita income — to give an idea of the general standard of living of

the two populations; and 2) income per economically active person — to provide a general picture of national productivity in the two countries. These two indices are shown in Table III.8 below. The data of this table need no comment. With an annual average of per capita income of about Rs. 252 (or about £19) and income per economically active person of about Rs. 630 (or about £47) for India, and about £E 32 (or about £33) and £E 74 (or about £76), respectively, for Egypt, the two countries had a desperately low level of national productivity and consequently lower levels of per capita real income (see Tables I.1 in Chapter I above and I-A-1 in Appendix A below, for data on other countries). Underdeveloped as they were, the two countries enormously differed with respect to the rates of change in per capita real income and in national productivity. While Egypt achieved a positive change in its national productivity and an average rate of growth of per capita real income of about 3.7 per cent per year during this period, India was burdened by a negative change in its national productivity and an average actual decline of about 1.4 per cent per year in its per capita income.

TABLE III.8

PER CAPITA AND PER ECONOMICALLY ACTIVE PERSON INCOMES

Year	Per capita income		Per economically active person income		Index of both series (1946 = 100)		Yearly changes (%)	
	India (RS)	Egypt (£E)	India (RS)	Egypt (£E)	India	Egypt	India	Egypt
1946	262.2	28.5	657.1	66.0	100.0	100.0	—	—
47	252.6	29.9	633.1	69.3	96.3	105.0	—3.7	5.0
48	249.9	33.9	616.3	78.6	93.8	119.0	—2.5	14.0
49	247.9	33.8	621.2	78.3	94.5	118.8	0.7	—0.2
1950	247.6	32.7	620.4	75.8	94.4	114.9	—0.1	—3.9

Notes: i — There is only one index for the two series simply because a single percentage (39.9 for India and 43.3 for Egypt) is used to get the yearly actual numbers of economically active population from the annual totals of population in each country. This is done due to the lack of yearly percentages.
ii — The national data used are those of Tables III.1, III.2 and III.3 above.

Sources: See sources of Tables III.1, III.2 and III.3 above.

The reasons for these changes in the relative performances of the two economies have partially and in general terms been mentioned during our analysis of national income data, (97) above. Further reasoning and explanation of the behaviour of these monetary indicators and the performances of the two economies in general will be attempted during the following analysis of the major sectors of economic activities in India and Egypt.

From Table III.4 above, it is quite clear that the two economies were predominantly agricultural. The three basic features of agriculture in India and Egypt can also be seen from that table. They are : 1) low productivity per agricultural worker, 2) low standard of living of the agricultural inhabitant, and 3) high dependency ratio. (98) These weaknesses in the major sector naturally affected national productivity, standard of living and dependency ratio, (see Tables III.2 and III.8 above). There were a variety of causes behind this situation of the Indian and the Egyptian agricultural sectors which will be discussed in some detail below. In general, one of the basic and long-term problems was the relative pressure of population on land in both countries, (see Tables III.10 and III.13 below). During this period, there also were the unfavourable partition effects (99) in

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(97) It must be emphasized that the possible margin of error in these statistics, as in most of the two countries' statistics, may be rather high. It could be 10 per cent either way. For more details on this point, see, e.g., A. Sherief, «General Trends of Growth of the Egyptian Economy..», **Op. cit.**, and Hansen and Marzouk, **Op. cit.**, for Egypt; and Rao and Others, **Vols I. and II, Op. cit.**, and Sovani and **Dandekar, Op. cit.**, for India.

(98) See Tables III.2 and III.4 above.

(99) The effects of partition on Indian agriculture can be seen from the following table which is adapted from : Gov. of India, Ministry of Food and Agriculture, **Indian Agriculture in Brief**, (Delhi, 1963) p. 41.

(Data for 1945/46)

Item	Geographical Area	Population	Net Area Sown	Net Irrigated Area	Production of Principal Food-Grains	Production of Sugar Cane	Production of Principal Oil Seeds	Production of Cotton	Production of Jute	Production of Tea	Production of Coffee	Production of Tobacco
% Share of Indian Union	80	82	84	69	75	84	95	60	19	85	100	78
% Share of Pakistan	20	18	16	31	25	16	5	40	81	15	0	22

the Indian case, and an acute shortage of fertilizers in the Egyptian. (100)

The growth of total agricultural output in physical terms in India and to some extent in Egypt was rather slow relative to the sizable problem of feeding a growing population with a pressing demand for raising the appallingly low standard of living (see Table III.8 above). Table III.9 below shows the quantum indices of agricultural production in the two countries. The average annual change was a rate of growth of about 0.2 per cent in India and about 5 per cent in Egypt. These rates of change compare well with those concerning national income behaviour shown in Table III.3 above.

TABLE III.9

VOLUME-INDEX OF AGRICULTURAL OUTPUT

(1934-38 = 100)

	India		**Egypt**	
Year	**Index**	**Yearly Changes**	**Index**	**Yearly Changes**
1946	98	—	98	—
47	99	1	101	3
48	96	—3	113	12
49	101	5	119	6
1950	99	—2	118	—1

Sources: U.N. **Statistical Yearbook, 1951,** for 1946 figures, and **Statistical Yearbook, 1952,** for the rest.

A brief treatment of the structure of agriculture in India and Egypt, from both input and output sides, may shed some

(100) The utilization of fertilizers declined by about 25 per cent of its pre-war level. (see, e.g., Hansen and Marzouk, Op. cit., pp. 67 and 77). However, India rated in this respect very poorly relative to Egypt. For more details, see this Section below.

lights on the agricultural problem in general and its role in the over-all problem of economic underdevelopment in particular, in the two countries.

One of the basic inputs in agriculture is cultivated area. This input has hardly changed during this period in Egypt as shown in Table III.10 below. In India, it also was more or less stationary until 1948, but substantially increased in 1949 and 1950. The reasons behind these increases are not at all clear. Many factors, ranging from the increase in coverage and the relative improvement of agricultural statistics in general, to some reclamation of land (mainly by government), may have been behind these changes. [101] From this table, the Indian and the Egyptian cropped areas (i.e., areas cultivated once, twice or three times per year) reflected the same trends of their cultivated areas. On average, the total cropped area remained about 15 per cent more than the total cultivated area in India, and about 60 per cent, in Egypt throughout the period. In other words, the cropped-cultivated area ratio was 1.15:1 for India and 1.6:1 for Egypt.

With a steady growth of population in the two countries, the per capita figures of both cultivated and cropped areas presented in the table clearly show the increasing relative pressure of population on land. This is particularly so in Egypt than in India. This pressure showed itself in the relative smallness of the average size of holdings [102] and in turn partially accounted for the low productivity per worker in agriculture.

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(101) Agricultural statistics are very seriously defective mainly because of the «non-reporting areas» which may account for about 15-25 per cent of the incomplete national totals. See on this, e.g., C.N. Vakil,, **Economic Consequences of Divided India**, (Bombay: Vora and Co., 1950), pp.167-71; and Rao and Others, **Vol. I, Op. cit.**, pp.3-32, The increase in coverage as a possible explanation is endorsed by the statement of the Planning Commission that «..little new area has come under cultivation during the last four decades....», see Gov. of India, Planning Commission, **The First Five Year Plan**, (New Delhi, 1952), p. 155.

(102) The average size was 2.3 acres in Egypt (1949) and 5.4 in India (1954), compared with, e.g., 37.7 in Denmark (1951), and as much as 215.5 in U.S.A. (1950) and 491.0 in New Zealand (1949). See Ministry of Food and Agriculture, **Indian Agriculture in Brief, Op. cit.**, pp. 51-52.

TABLE III.10

TOTAL AND PER CAPITA CULTIVATED AND CROPPED AREAS

	India (in acres)					Egypt (in Feddans)				
	Total (in Mns.)		Per Capita (in units)			Total (in Mns.)		Per Capita (in units)		
Year	Cultivated Area	Cropped Area	Cultivated Area	Cropped Area	Cropped-Cultivated Area Ratio	Cultivated Area	Cropped Area	Cultivated Area	Cropped Area	Cropped-Cultivated Area Ratio
1946	206.0	242.4	0.607	0.715	1.15:1	5.77	9.16	0.307	0.487	1.587:1
47	207.6	244.2	0.604	0.711	1.15:1	5.76	9.16	0.303	0.482	1.590:1
48	208.1	244.8	0.598	0.703	1.15:1	5.75	9.16	0.295	0.470	1.593:1
49	224.1	263.6	0.636	0.748	1.15:1	5.83	9.20	0.293	0.462	1.579:1
1950	245.1	288.3	0.686	0.807	1.15:1	5.83	9.25	0.286	0.453	1.587:1

Notes: i — 1 Feddan = 1.038 acres.
ii — The Indian data on cultivated area are calculated on the basis that they are roughly 15 per cent less than those on cropped area in each year. See Sources.
iii — The national population data used are those of Table III.1 above.

Sources: For India, Gov. of India, Central Statistical Organization, **Statistical Abstract of India, 1953/54**, Annual Series, No. 5, (Delhi, 1956); and for Egypt, the Egyptian Government, Dept. of Statistics and Census, **Annuaire Statistique: 1949/50 et 1950/51**, pp. 368-69, and El-Imam, "A Production Function...", **Op. cit.**, p. 36.

Two main factors limit the cultivated and cropped areas, namely, the topography and the amount of water available. According to the first factor, the total area of each country is classified as shown in Table III.11 below. From the data of this table it seems that the Indian topography is much more favourable than the Egyptian. However, one should not over-emphasize the quantitative side of the picture. In fact the qualitative aspect is quite important. In this respect, Egypt is in a more favourable position than India. The quality of cultivated land in Egypt is extremely fertile and uniform. In contrast, the Indian cultivated land has all sorts of fertility.[103] This fact, together with many others (as will be discussed below), accounted for the low pro-

TABLE III.11

LAND UTILIZATION

(In Mns.)

Land Use	**India (in acres)**		**Egypt (in Feddans)**	
	Total	%	**Total**	%
1. Cultivated Area	2,937	36.4	5.76	2.4
2. Potentially Cultivable Area	1,262	15.6	2.24	0.9
3. Uncultivable Area	2,397	29.8	230.52	96.7
4. Forests	1,470	18.2	—	—
Total Area	8,063	100.0	238.52	100.0

Notes: i — (—) = nil or negligible.
ii — The Indian data are for 1950/51, and the Egyptian, for 1947.
iii — Item II consists of fallow land (8.6 per cent) and cultivable waste (7 per cent) in the Indian case; and the part of desert which could be cultivated, in the Egyptian.
iv — Item III comprises deserts, mountains, etc.. (18.2 per cent), pastures and other grazing lands and miscellaneous tree crops and groves (8 per cent), and built-on area (3.4 per cent) in the Indian case; and desert (95.6 per cent), and built-on area (1.1 per cent) in the Egyptian.

Sources: For India, Gov. of India, Ministry of Information and Broadcasting, Research and Reference Division, **India: A Reference Annual, 1964,** (Delhi, 1964), p.201, and Planning Commission, **The First Five Year Plan, Op. cit.,** p.153; and for Egypt, Central Agency for Public Mobilization and Statistics, **The Annual Book of General Statistics of the United Arab Republic, 1952-1964, Op. cit.,** p.7; and Issawi, **Egypt in Revoultion....», Op. cit., p.131.**

(103) For details on this point, see Ministry of Food and Agriculture, **Op. cit.,** pp. 30-31.

ductivity per unit of land in India, relative to that in Egypt. With respect to forests, India was in a clear advantageous position. However, not only was the forest area proportionately smaller (in relation to the total area and population) in India, but it was also unevenly distributed, and its productivity per acre per year was substantially below those in other countries, [104] during the period under discussion.

The second factor (the amount of water available), besides its determination of the cultivated area, is the decisive factor in determining the cropped area. It is therefore by far the most important input in agriculture in the countries. However, it is not the availability of water as such that is important, but the timing and usability of the water available. For example, the main source of water for Indian agriculture is rainfall which provided water for about 83 per cent of the total area under cultivation during the period under discussion. [105] But the basic feature of the rainfall in India is its unequal distribution during the year and its variation from year to year in respect of quantity, incidence and duration. A partial failure of monsoon results in famine conditions in some parts of the country. This is one of the main weaknesses in Indian agriculture. And that is why irrigation is vitally important in India. However, its contribution in providing water for agriculture was still quite small. About 17 per cent of the total cultivated land was under major and minor irrigation. This was not because India had exhausted its water resources. Far from it. Of the total river flow, only 5.6 per cent was used by 1950 for irrigation and power generation, and the rest ran to waste. However, a third of the total river flow is considered utilizable for irrigation. This raises the percentage of the used water to about 17 per cent of the avail-

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(104) For more information on this, see Planning Commission, **The First Five Year Plan, Op. cit.,** pp.285-96.

(105) See P.C. Mahalanobis, «The Approach of Operational Research to Planning in India,» **Sankhya : The Indian Journal of Statistics,** Vol. 16, Parts 1 and 2, (Dec. 1955), p. 12 ; and Planning Commission, **The First Five Year Plan, Op. cit.,** p. 339.

(106) For more data on this point, See J.S. Patel, «Agriculture in India, Needs and Prospects», paper read at **UNCAST, Paper No. E/Conf. 39/C/477,** (Nov., 1962), p. 3. Also, there is ground water in all parts of the country. See Planning Commission, **The First Five Year Plan, Op. cit., p. 337.**

able utilizable water.[106] This fact accounts for the relatively small cropped — cultivated area ratio in India (see Table III.10 above). It also shows the great potentiality of Indian agriculture as far as water resources are concerned.

In the Egyptian case, agriculture depends almost entirely on Nile water, for even on the coast the rainfall is inadequate for cultivation ; and in the rest of the country there is hardly any rain at all. Irrigation is not only vitally important, but it also is the sole source of water supply. Consequently, the control of Nile water is always the main problem in Egyptian agriculture. Because of its developed irrigation network, Egypt enjoys the avaliability of water for irrigation all the year round. Professor Selim describes this state by saying, "Thanks to the harnessing of the Nile, Egypt enjoys the equivalent of rainfall of three different natural regions : the Mediterranean in winter, the American Gulf in spring and early summer, and the Monsoon in late summer and autumn."[107] However, though this is a happy state, it is not happy enough to the extent of meeting the growing need for more water for increasing the cropped area and bringing more land under cultivation, in face of the explosive nature of population growth.

In Egypt, a "standard" year is considered to supply one fifth of water as timely water, one fifth as untimely nonstorable water, and three fifths as untimely but storable water. Up to 1950, the yearly storage capacity of the irrigation system was only about 1.8 per cent of the untimely storable water.[108] This fact shows that Egypt, like India, is still far below the amount of used water which exhausts its utilizable water resources.[109]

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(107) See H.K. Selim, **Twenty Years of Agricultural Development in Egypt,** (Cairo, 1940), p. 4 — cited in Issawi, **Egypt in Revolution:..., Op. cit.,** p. 127.

(108) For more data on this point, see Sudan Government, **Sudan Almanac, 1955,** (Khartum, 1955), pp. 49-50 — cited in Hansen and Marzouk, **Op. cit.,** pp. 49-50.

(109) Especially if the underground water is taken into account. For an evaluation of the amounts of water from this source, see United Arab Republic, General Desert Development Organization, **UAR Development and Land Reclamation Projects,** (Cairo, 1961), pp. 7-9, and M. Elgabaly, «Irrigation and Water Use in UAR», paper read at **UNCAST, Paper No. E/Conf. 39/C/161,** (Oct., 1962), pp. 3-7.

It is not surprising to find that the Indian and the Egyptian total cultivated and cropped areas were virtually constant during this period in spite of the fact that there were sizable potentially cultivable area and huge utilizable water resources in each country. This is because land and water resources did not generally lend themselves to economic use within the means of the cultivators in India and Egypt. Only government efforts could have done this by more land reclamation and irrigation works. From the relatively small share of agriculture in a relatively small total fixed investment in each country (see Tables III.5 and III.6 above), it seems obvious why such vital works have not been carried out. These small agricultural investments were mainly for keeping the existing agricultural structure and irrigation network in a workable order. [110]

The second important input in agriculture is labour. From the data of Tables III.2 and III.4 above, one may have a rough idea about the relatively low level of productivity of this input in India and Egypt. This low productivity is partly attributed to the large size of labour relative to the limited cultivated land. So, it is customary to speak of the existence of "huge" labour surplus in form of unemployed and underemployed persons, most of whom are probably "removable" without affecting the volume of production under prevailing conditions. Furthermore, if one allows for reorganization of labour and land in an effort to increase the size of the tiny family holdings (which are often further fragmented into narrow strips far apart), the subsequent "removable" surplus may be much larger. Table III.12 below

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(110) Egyptian agriculture, with a 100 per cent irrigated land (two thirds of which under the perennial system), has many problems. Important among them are the diminishing of the fertility of the soil and the raising level of the underground water-table. The first is dealt with by an intensive use of fertilizers, as will be discussed in this Section below, and the second, through extensive (but still inadequate) drainage system. Indian agriculture also suffers from the same problems — the first, with respect to the total cultivated area, and the second, with regard to the irrigated area. For details on this point, see for Egypt, S. Marei, **UAR Agriculture Enters a New Age**, (Cairo, 1960), particularly Chapters 4 and 5, and Sherief, «General Trends of Growth of the Agricultural Sector...», **Op. cit.**, pp. 1-4 ; and for India, M. Prasad, «Problems of Irrigation and Water use in India», paper read at **UNCAST, Paper No. E/Conf. 39/C/106,** (Sept., 1962), pp. 2-8, and Planning Commission, **The First Five Year Plan, Op. cit.**, pp. 297-305.

gives a good idea about the relative pressure of population on land and about how unfavourable to production the relative distribution of holdings by size was in each country by the end of the period. However, it is practically impossible to know with a reasonable degree of exactitude not only the quantitative measurement of the "removable" surplus, but also the total input of labour itself.

TABLE III.12: **DISTRIBUTION OF OPERATIONAL AND OWNERSHIP HOLDINGS, ACCORDING TO SIZE**

	Operational Holdings				Ownership Holdings			
	India		Egypt		India		Egypt	
Class	% of Holders	% of Area	% of Holders	% of Area	% of Owners	% of Area	% of Owners	% of Area
1. Less than 5 units	71.2	15.6	78.5	23.2	74.4	16.8	94.3	35.4
2. 5-50	27.0	61.6	20.0	37.7	24.2	62.9	5.3	30.4
3. Over 50	1.8	22.8	1.5	39.1	1.4	20.3	0.4	34.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Notes: i — The unit of holding is an acre for India, and a feddan for Egypt.
ii — The second class is «5-40», and the third «over 40» for India.
iii — The Indian data are for 1953-54; and the Egyptian operational holdings' data are for 1950 and the ownership data are for 1952 (before the Land Reform Law of 1952).

Sources: For India, Ministry of Food and Agriculture, **Indian Agriculture in Brief, Op. cit.,** p. 48; and for Egypt, National Bank of Egypt, **Economic Bulletin**, Vol. X (Cairo, 1957) p. 46, and Central Agency for Public Mobilization and Statistics, **The Annual Book of General Statistics of the United Arab Republic, 1962-1964, Op. cit.,** p. 40.

Nevertheless, in order to give a rough idea of the order of magnitude of the agricultural labour problem in India and Egypt on the eve of their planning experiences, an attempt is made just to roughly indicate the magnitude of labour surplus in agriculture during 1946-50 in the two countries. The basic assumption of this attempt is "re-organization" of land and labour in the sense of consolidating scattered strips and redistributing land into economic units large enough to absorb fully the supply of labour of the cultivators and members of their families, and that season-

abilities in cultivation and harvesting could be met by "over-time" and greater efforts from all the family members.

Having made this assumption, perhaps the simplest practical method for estimating this surplus would be to establish a "desirable" density of population on the arable land. The surplus will be represented by the difference between the actual and the desired agricultural population which is assumed to maintain the prevailing volume of output. To apply this method two more assumptions are needed, namely, 1) an average size of rural family of six persons for each country; (111) and 2) a "five-feddan cultivated area" as a standard plot per family for Egypt, and a "ten-acre cultivated area" per family for India. (112) Accordingly, the estimated surplus in each country is as shown in Table III.13 below. (113)

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(111) According to the Agricultural Labour Enquiry (1950-51) in India, the average size of rural family was 5.2 persons. See Ministry of Food and Agriculture, **Indian Agriculture in Brief, Op. cit.**, p. 51. According to 1947 Census in Egypt, the average size of household (for total population) was 4.7 persons, See United Arab Republic, Central Agency for Public Mobilization and Statistics, **Basic Statistics : 1964**, (Cairo, 1965), pp. 26-27. However, bearing in mind that total rural population includes children under 5, elderly persons and disabled, the average size of six persons seems to be not an unreasonable assumption for our purpose.

(112) The Actual average size of holdings was 2.2 feddans in 1949 for Egypt, and 5.4 acres in 1954 for India. See Ministry of Food and Agriculture, **Indian Agriculture in Brief, Op. cit.**, pp. 51-52. However, bearing in mind the relatively higher cropped-cultivated area ratio and the more fertile land in Egypt, relative to India, the average postulated are not arbitrary figures.

(113) A similar method was adopted by E. Shefers in his «Economic Development and Population Growth in Egypt», **Unpublished Ph. D. Thesis**, (London University, 1962), pp. 49-71. Dr. Shefers assumes a «5-feddan» plot and a «5-person» family and reaches an estimation of labour surplus in agriculture of 50 per cent of the total rural population-according to 1947 Census data.

TABLE III.13: **SURPLUS OF LABOUR IN AGRICULTURE**

Item	India	Egypt
1 — Total Population (in Mns.)	348.1	19.5
2 — Rural Population as a % of Total Population	69.8	62.8
3 — Rural Population (in Mns.), (= (1) × (2))	242.97	12.25
4 — Average Size of Rural Family (No. of Persons)	6	6
5 — Rural Families (in Mn. units), (= (3)/(4))	40.5	2.04
6 — Total Cultivated Area (in Mn. Units)	256.7	5.788
7 — Standard Plot per Family (in Units)	10	5
8 — Desirable No. of Rural Families for Cultivating Total Area (in Mns.), (= (6)/(7))	25.7	1.16
9 — Surplus of Labour (in Mn. Families), (= (5) — (8))	14.8	0.88
10 — **Surplus of Labour as a % of Total Rural Population (= (9)/(5) × 100)**	**36.5**	**43.1**
11 — Official Estimation of the Surplus of Labour as a % of Total Rural Population	30.0	30.0

Notes: i — The unit of cultivated land is an acre for India, and a Feddan for Egypt.
ii — The Figures of items (4) and (7) are assumed as stated above.
iii — The data on population and cultivated area are the annual average of 1946-50.
iv — Data of item (11) are for disguised unemployment in 1950, in the Egyptian case, and for unemployment in 1950-51, in the Indian.

Sources: For population and cultivated area data, see Tables III.1, III.2 and III.10 above. For data of item (11), see for India, Planning Commission, **The First Five Year Plan, Op. cit.,** p. 652; and for Egypt, Republic of Egypt, Ministry of Agriculture, **Agricultural Census of Egypt, 1950,** (Cairo, 1958), pp. 254-55.

Admittedly, this method and the estimate of the surplus resulted are open to serious criticisms and subject to possible wide margins of error in either way. However, no further objective is attributed to this rough calculation than to indicate the order of magnitude of the problem. Having estimated the surplus in this way, one must emphasize the obvious fact that such surplus could not be described as "removable." To describe it as such is totally unfounded and a serious kind of exaggeration. The fact is that : 1) the reorganization of agricultural production

along the lines suggested above has not taken place and is quite difficult to implement, (114) and 2) the seasonality of agricultural production is always there. This fact creates serious doubts about the removability of such labour surpluses under the prevailing conditions in India and Egypt.

Some economists virtually deny the existence of the phenomenon. For example, N.N. Sovani argues that there is hardly "any removable surplus" in Indian agriculture. (115) In the Egyptian case, Professor Bent Hansen and Dr. Girgis Marzouk also argue that "... it seems quite clear that we should not speak of disguised unemployment." "In other words," they continue, "we cannot, **ceteris paribus,** remove one man **permanently** without detrimental effects on total production." (116)

However, one could not go as far as that. It is hard to believe that the problem does not exist where millions of people are crowded on evidently too tiny plots of land according to any standard. Tables III.12 and III.13 above clearly show that the problem is certainly there. (117) The difficulty of determining the "how-many" question does not mean that there is no labour surplus problem in agriculture in India and Egypt. In order to tackle such a problem, re-organization of agricultural production should be attempted, cultivated and cropped areas should be expanded, cultivation should be further intensified, and millions of people should consequently be transferred to non-agricultural activities. These basic policy measures will be discussed later on in this study, in Part II below, to see how far the Indian and Egyptian planners and decision-makers have succeeded in putting them into practice during the 1950's and the 1960's.

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(114) For the two countries' attempts in this respect, see Chapters IV, V, VI and VII below.

(115) Cited in P.N. Rosentein-Rodan, «Disguised Unemployment and Underemployment in Agriculture», **FAO, Monthly Bulletin of Agricultural Economics and Statistics,** Vol. VI, (July/August, 1957), p. 7.

(116) Hansen and Marzouk, **Op. cit.**, p. 64., (the authors' italics)

(117) For an excellent and detailed account on this point, see D.C. Mead, **Growth and Structural Change in the Egyptian Economy,** (Illionois : Irwin, 1967), pp. 80-98. Professor Mead suggests that the official 30 per cent figure cited in Table III.13 above is a gross underestimation. For India, see Planning Commission, **The First Five Year Plan, Op. cit.,** pp. 650-55.

Another crucial input in agriculture is fertilizers. In both countries, (manuring and chemical) fertilizers are among the most important agricultural inputs, mainly because of the increasing exhaustion of soil. With respect to manures, unfortunately, there is virtually no quantitative information about the total amount utilized and its share in total utilization of fertilizers. However, there is no reason to believe that average utilization of manures per unit of cropped area in one country is much higher than in the other. But one thing is certain, namely, that manures are not utilized in any rational way in both countries. A large part of it is either used as fuel by cultivators or wasted.(118) As for the relative utilization of chemical fertilizers (nitrogenous, phosphatic and potassic), India compares very poorly with Egypt.(119) From Table III.14 below, it appears that this is so in terms of not only the average utilization per unit of cropped area, but also of total utilization. This table also shows that the level of utilization of chemical fertilizers is inadequate, compared with total requirements of the exhausted soil, in each country.(120)

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(118) For more information see Hansen and Marzouk, **Op. cit.,** p. 67, for Egypt; and Planning Commission, **The First Five Year Plan, Op. cit.,** pp. 244-60, for India.

(119) The relative positions of the two countries with respect to other chemicals such as insecticides, pesticides, fungicides and weedicides are more or less similar to those of chemical fertilizers.

(120) Though the Egyptian level of utilization is among the highest in the world, it is worth noting that during the war period it reached its lowest point (owing to import difficulties), a fact which contributed to the relatively poor performance of agriculture during the 1940's. See this chapter above, and Central Bank of Egypt, **Economic Review,** Vol. I, (Cairo, 1961), p. 213.

TABLE III.14: **UTILIZATION OF CHEMICAL FERTILIZERS**

(In 000' tons)

Country	(1) Local Production	(2) Imports	(3) = (1) + (2) Total Utilization	(4) Total Requirements	(5) = (4) — (3) Deficit	(6) Deficit as a % of Total Requirements	(6) Average Utilization Per Unit of Cropped Area (Kgs.)
India	101.4	215.6	317.0	3,000.0	2,683.0	89	1.1
Egypt	31.0	410.5	441.5	1,628.0	1,186.5	73	48.1

Notes : i — Total utilization is treated as equal to total supply, assuming that there were no stocks.
ii — Data in columns (1), (2) and (3) are for 1950/51 **in the Indian case,** and for the annual average of 1945-49 in **the** Egyptian.
iii — The estimation of the annual total requirements was for the immediate post-war years. It is made by Foodgrains Policy Committee (in 1943) in the Indian case, and by the Ministry of Agriculture in the Egyptian.
iv — The total cropped areas used in column (7) are the annual averages of 1946-50, (see Table III.10 above).

Sources : For India, Planning Commission, **The First Five Year Plan, Op. cit.,** pp. 446-47. Ministry of Finance, **India : Pocket Book of Economic Information, 1962, Op. cit.,** p. 46, and R. Owen, **India : September 1952,** Overseas Economic Surveys, (London : H.M.S.O., 1953), p. 266 ; and for Egypt, Central Bank of Egypt, **Economic Review,** Vol. I, (Cairo, 1961), p. 214, National Bank of Egypt, **Economic Bulletin,** Vol. XIV, (Cairo, 1961), and S. Marei, **Op. cit.,** pp. 8-9.

There are other elements in the production process of agriculture. These elements range from livestock and credit facilities to machinery and scientific research. Important as they are, there is virtually no quantitative information on these elements, concerning the period under discussion. However, from the scanty information available, one can say that in both countries livestock are among the most important elements in agricultural production. They are used both as a source of power (working animals), and for the production of milk, meat as well as manures.[121] With respect to credit facilities, the situation has not substantially improved — from its very low levels during the last one hundred years or so. The centuries-old problem of chronic rural indebtedness was still prevailing in the Indian and the Egyptian agricultural sectors (particularly the Indian)[122] during 1946-50. As for machinery, apart from some big estates, co-operatives, research centres and some irrigation works, methods of production are on the whole crude and simple. On the small operational holdings which constitute the largest part of the cultivated area in each country (see Table III.12 above), the implements seem to be the same as in ancient times.

It goes without saying that most of these defects in the agricultural production process by and large stem from land tenure and agrarian arrangements prevailing in India and Egypt during the past one hundred years or so. In general, the fundamental features of such agrarian systems basically centered around the following : 1) accumulation of large tracts of land in the hand of a few absentee landlords, 2) excessive rents charged by landowners, 3) insecurity of tenure, 4) inability of peasant farmers to purchase the land they cultivate, 5) inability and/or unwillingness of tenant farmers or landowners to make

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(121) For some data on livestock, see Hansen and Marzouk, **Op. cit.,** pp. 65-67, for Egypt ; and Ministry of Food and Agriculture, **Indian Agriculture In Brief, Op. cit.,** pp. 42-44, for India.

(122) For more details, see, e.g., Vera Dean, **New Patterns of Democracy in India,** (Cambridge : Harvard University Press, 1959), particularly p. 11, for India, and C. Issawi, **Egypt In Revolution:..., Op. cit.,** pp. 259-64, for Egypt. However, from the data on relative standards of living in both countries, stated in this Section above, it seems that the Indian problem was more serious than the Egyptian.

improvements that would increase the yield of the cultivated land, and 6) passive role of government towards agriculture, particularly in the field of credit facilities.

By and large, from the above discussion, it is not an exaggeration to suggest that Egyptian agriculture was far more developed than Indian agriculture, on the eve of economic planning in the two countries. [123] This seems to be obvious not only from the rates of growth of total physical output of this vital sector, but also from the structure and relative utilization of its various inputs in each country. [124] The quality and quantity of these inputs and the degrees of their utilization show themselves quite clearly in the relative performance of agriculture in terms of average yields per unit of land for various crops.

Table III.15 below gives us the yields per unit of land for main crops in India and Egypt during 1946-50. The data presented clearly reflect the relative performance of agriculture in the two countries. The annual averages of yields of almost all principal crops in India were quite low in comparison with those in Egypt. [125] As late as 1956-58, the relative positions of both India and Egypt have not materially changed. Indian average

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(123) On the state of Indian agriculture (in 1958), the Indian Planning Commission has this to say, «Modern knowledge of improved seeds, fertilizers, farm practices and implements has not.... reached the village farmer from India's agricultural colleges and research stations.» See Gov. of India, Planning Commission, **The New India : Progress Through Democracy,** (New York : Macmillan, 1958), pp. 161-62. In the Egyptian case, Professor Mead says, «Egyptian agriculture is not primitive and backward, awaiting simply the application of more advanced technology to yield massive increases in output; on the contrary, given the factor supplies available, production techniques are advanced and efficient.» See D. Mead, **Op. cit.,** p. 75.

(124) In this state of agricultural statistics in India and Egypt, inference concerning the possible forms of the production function of agriculture in the two countries is extremely difficult, if not impossible. However, preliminary but important works in this respect have been done in both countries. See, e.g., **El-Imam,** «A Production Function... », **Op. cit.,** for Egypt ; and A.K. Chakraverti, **The Structure of the Indian Economy, 1953 — 54,** (London : Asia Publishing House, 1965), for India.

(125) However, the Egyptian yields, though among the highest in the world, were lower than their pre-war levels mainly because of the drastic decline of fertilizers' utilization during the war years. See footnote (120), in this Chapter above.

yield per unit of land for almost every crop remained one of the lowest yields in the world, and Egyptian, one of the highest, as shown in Table III.16 below.

TABLE III.15

AVERAGE YIELDS OF PRINCIPAL CROPS

(Lbs. Per Unit of Land)

Crop	Annual Average of 1946-50 India	Annual Average of 1946-50 Egypt
I — Foodgrains		
Rice	707	3,567
Wheat	613	1,603
Maize	582	1,865
Millet	302	2,343
Barley	704	1,654
Beans	466	1,563
II — Other Crops		
Cotton	74	509
Jute	1,006	N.C.
Sugar-cane	3,075	62,860
Onion	. .	10,000
Groundnut	747	N.C.

Notes: i — ((. .) = not available.
ii — (N.C.) = not cultivated.
iii — The unit of land is acre in India, and feddan in Egypt. 1 feddan = 1.038 acres.

Sources: For India, M. Dantwala, "Trends in Yields per Acre", in Sovani and Dandekar, **Op. cit.,** pp. 24-25; and for Egypt, United Arab Republic, Ministry of Agriculture, Dept. of Agricultural Economics and Statistics. **The Agricultural Economy,** Monthly Bulletin, Vol. 12, (Jan., 1961), (in Arabic), pp. 108, 143, 162, 173, 194, 208, 220, 236 and 265, and the Annual Number, (Dec., 1963).

These high yields coupled with general economic underdevelopment in Egypt clearly show the basic feature of the Egyptian economic problem, namely, the relative pressure of population on national resources. This fact also indicates the relative importance of developing non-agricultural activities in the country. On the other hand, the performance of Indian agri-

TABLE III.16

RELATIVE POSITIONS OF INDIA AND EGYPT AMONG PRODUCING COUNTRIES OF TEN CROPS

(Average Yield per Feddan)

Crop	Relative Places of Producing Countries								Relative Places of	
	1st	2nd	3rd	4th	N-3	N-2	N-1	Nth	India	Egypt
1 - Rice (per Dariba)	Spain (2.58)	Egypt (2.25)	Italy (2.24)	Japan (1.92)	Philippines (0.52)	Panama (0.47)	Laos (0.39)	Sierraleone (0.37)	26th (0.58)	2nd (2.25)
2 - Wheat (per Ardeb)	Denmark (11.07)	Netherlands (10.44)	Belgium (9.58)	U.K. (8.76)	Syria (1.84)	Morocco (1.81)	Iraq (1.73)	Tunisia (1.12)	28th (1.93)	9th (6.55)
3 - Maize (per Ardeb)	Canada (10.80)	U.S.A. (9.08)	Austria (9.00)	Italy (8.53)	South Africa (3.21)	Mexico (2.44)	India (2.34)	Philippines (1.62)	21st (2.34)	10th (6.30)
4 - Millet (per Ardeb)	Egypt (7.91)	U.S.A. (5.51)	Australia (4.66)	R.-Urundi (3.90)	Honduras (2.45)	Eritrea (1.55)	India (1.45)	Pakistan (1.44)	11th (1.45)	1st (7.91)
5 - Barley (per Ardeb)	Netherlands (13.53)	Denmark (12.67)	Belgium (11.61)	Ireland (10.45)	Syria (2.24)	Algeria (2.18)	Portugal (2.14)	Tunisia (0.97)	31st (2.77)	10th (8.20)
6 - Beans (per Ardeb)	W. Germany (5.97)	U.K. (5.79)	Egypt (4.41)	France (3.79)	Algeria (1.49)	Brazil (1.27)	Tunisia (0.87)	Morocco (0.76)	14th (1.66)	3rd (4.41)
7 - Cotton (per Cantar)	El Salvador (6.46)	U.S.S.R. (5.93)	Egypt (4.99)	Nicaragua (4.44)	Uganda (0.85)	Chad (0.80)	Kenya (0.67)	Equat. Africa (0.64)	28th (0.95)	3rd (4.99)
8 - Sugar-Cane (per Cantar)	Haway (1830)	Peru (1455)	Trin. & Tobago (1047)	Egypt (869)	Paraguay (277)	Honduras (239)	Bolivia (233)	Kenya (207)	24th (377)	4th (869)
9 - Onion (per Cantar)	U.S.A. (223)	Spain (191)	Japan (161)	Egypt (148)	Turkey (64)	Yugoslavia (52)	Romania (48)	Brazil (47)	... ...	4th (148)
10 - Groundnut (per 100 Kg.)	Israel (13.11)	Brazil (5.46)	U.S.A. (4.98)	Indonsia (4.73)	Argentina (4.45)	South Africa (3.65)	India (2.91)	Burma (2.55)	7th (2.91)	N.C.

Notes: i — (N) = all principal producing countries. Nth place thus is that of the country with the lowest yield per feddan.
ii — (...) = not available. iii — (N.C.) = not cultivated. iv — = For the conversion of the above weight units to Kgs., See Table VIII-A-44, in Appendix A, below. v — All data are for the annual average of 1956-58, except those for beans, sugar-cane and groundnut which are the annual averages of 1958/59-1960/61.

Sources: United Arab Republic, Ministry of Agriculture, **The Agricultural Economy,** (Jan., 1961), **Op. cit.,** pp. 75, 125, 149, 165, 177, 198, 210 and 222; and **the Annual Number,** (Dec., 1963), **Op. cit.,** p. 333, and Gov. of India, Ministry of Food and Agriculture, **Indian Agriculture in Brief, Op. cit.,** pp. 70-71.

culture shows that India still has a long way to go with respect to possible increases in yields of most of its crops. This of course does not mean that Egypt has reached its physical and technical limits in this field. Far from it. Particular efforts should be made to increase yields of all crops through, e.g., proper timing of irrigation, economic use of water more fertilizers, improving drainage system, etc.

With respect to **industry,** India and Egypt were in unfavourable positions. Though expanding, industry was still relatively infant and very small, during 1946-50. The smallness of the relative shares of industry (including mining and quarrying, and electricity) in national income, employment and livelihood in India and Egypt is clearly shown in Table III.4 above. From this table one can see that industry has done virtually nothing to transform the two economies, and has made little impact on general standards of living in the two countries.

However, from its small base, industry has grown rapidly during this period, relative to its past performances and in relation to those of other sectors of the economy, particularly in Egypt. Table III.17 below shows the order of change in industrial production in India and Egypt. Indian industry, though expanding, achieved a very modest rate of growth. In fact, its average rate of growth per year of 1.25 per cent was nearly the same as that of population (1.3 per cent). The performance of Egyptian industry was much more encouraging. The average rate of industrial growth was more than five times that of population. The two annual average were 11 per cent and 2.1 per cent, respectively. [126] The general causes behind these relative performances of industry in India and Egypt may partly be attributed to the abnormality of the period under discussion, as mentioned above, and to the adoption of increasingly protectionist tariff policies in both countries. [127]

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(126) This various industrial growth was «never surpassed later». See Hansen and Marzouk, **Op. cit.,** p. 116; and Part II of this study, below.

(127) See S. Abd-El-Rahman, **Op. cit.,** for Egypt; and Vakil, **Op. cit.,** pp. 185-401, and A.K. Banerji, **India's Balance of Payments,** (London: Asia Publishing House, 1964), for India.

TABLE III.17 :

VOLUME-INDEX OF INDUSTRIAL PRODUCTION

(1946 = 100)

Year	**India**		**Egypt**	
	Index	**Yearly Changes (%)**	**Index**	**Yearly Changes (%)**
1946	100	—	100	—
47	97	—3	109	9
48	108	11	122	13
49	106	—2	137	15
1950	105	—1	144	7

Sources : For India, Central Statistical Organization, **Statistical Abstract of India, 1955-56 ;** and for Egypt, Hansen and Marzouk, **Op. cit.,** pp. 115 and 116-18.

In general, the basic feature of the structure of industry in India and Egypt on the eve of economic planning was twofold. Firstly, by the kind of products, the share of consumer goods in total industrial production was preponderant. Secondly, by the size of plant (in terms of number of persons employed), small-scale enterprises had the largest share in total industrial employment.[128] These two fundamental characteristics, among others, are shown in Table III.18 below.

(128) In fact, small enterprises consist of many different types. In Egypt, they principally are handicraft shops, repair and service shops, and small factories: and in India, handicraft shops, cottage enterprises, and small modern factories. See, for Egypt, U.N. **The Development of Manufacturing Industry in Egypt,..., Op. cit.,** p. 32; and for India, P. Dhar and H. Lydall, **The Role of Small Enterprises in Indian Economic Development,** (London : Asia Publishing House, 1961), pp. 1-3.

TABLE III.18

SOME BASIC FEATURES OF INDUSTRY

(In Percentages)

Item	India	Egypt
I — Shares of "1-9" Persons Establishments in Total Industrial Employment	74	55
II — Share of Consumer Goods in Total Gross Industrial Production	83	81
III — Share of Consumer Goods in Total Industrial Value Added	...	72
IV — Share of Major Cities in Total Industrial Employment	35	54
V — Average Number of Workers engaged per Manufacturing Establishment, (in Nos.)	55	76
VI — Share of Wages in Total Costs of Gross Industrial Production	15	10
VII — Share of Payroll in Total Industrial Value Added	48	39
VIII — Capital — Output Ratio in Industry, (Manufacturing)	1.8:1	1.4:1

Notes: i — (...) = not available.
ii — All items are for 1950. except item I Which is for 1956 for India, and 1947 for Egypt.
iii — Item, V is for 'ten persons and more' establishments for both countries. So is item VI in the Egyptian case.

Sources: For India, Dhar and Lydall, **Op. cit.**, pp. 3, 7, 18 and 30, Mahalanobis, **Op. cit.**, p. 14, and S.A. Palekar, **Problems of Wage Policy for Economic Development** (London: Asia Publishing House, 1962), pp. 142 and 159; and for Egypt, U.N., **The Development of Manufacturing Industry in Egypt,...**, **Op. cit.**, pp. 33, 36, 43, 45, 59 and 62, and Hansen and Marzouk, **Op. cit.**, p. 128.

The promotion of small-scale enterprises has strongly been recommended as one of the most appropriate means of developing industry in over-populated underdeveloped countries like India and Egypt. Japan is always held up as the great example

of what can be done in this way.[129] However, in India and Egypt, the relative share of these enterprises in total industrial employment was unfavourably high. The state of such enterprises and the government attitude towards them were in a sense against their development into efficient medium-sized firms. This in turn adversely affected industrial development as a whole. The basic reasons behind this unfavourable position were the sheer smallness of these enterprises, their various disabilities (such as lack of capital, of technical advice, of marketing contacts, etc.), and government protection (particularly in India) which kept them stagnant and uneconomic.[130] In both countries, though having the largest share in industrial employment, the relative share of these enterprises in total industrial output as well as their rate of growth during 1946-50 were much lower than those of medium and large-scale enterprises.[131]

TABLE III.19

INDUSTRIAL ESTABLISHMENTS AND EMPLOYMENT, BY SIZE

(In Percentages)

Size of Establishment (by No. of Persons Emplyed)	**No. of Establishments**		**No. of Persons Employed**	
	India	**Egypt**	**India**	**Egypt**
I — 10- 49	87	79	30	19
II — 50-499	11	19	25	33
III — 500 and Over	2	2	45	48
Total	100	100	100	100

Notes : i — As shown, the above data do not include establishments of 1-9 persons. For information on this group, see Table III.18 above.
ii — Data are for 1956 for India, and 1952 for Egypt.

Sources : For India, Dhar and Lydall, **Op. cit.**, pp. 8 and 29 ; and for Egypt, Hansen and Marzouk, **Op. cit.**, p. 126.

(129) For detailed account on the arguments in favour of small enterprises and a critical examination of such arguments, see Dhar and Lydall, **Op. cit.**, pp. 10-34, for India ; and U.N., **The Development of Manufacturing Industry in Egypt...**, **Op. cit.**, pp. 32-35.

(130) For details, see Dhar and Lydall, **Op. cit.**

(131) For supporting data, see Dhar and Lydall, **Op. cit.**, for India; and Hansen and Marzouk, **Op. cit.**, pp. 125-27, for Egypt.

Another (unfavourable) characteristic of the structure of industry in India and Egypt with respect to the size question was that while there was a high concentration of establishments and employment in the lowest end of the size scale, there also was a high concentration of employment in the highest end. Thus, industry tended to be either on a very small scale or on a very large scale ; and it was quite thin in the middle, as can clearly be seen from the data of Tables III.18 and III.19. This fact exposes industry in each country to the general criticism that it consisted of too small or too big establishments (relative to the domestic market) to be considered efficient, as will be discussed in this section below.

By type of products, the order of importance of manufacturing industries (in terms of their relative contributions to naional income) in India was : cotton textiles, tea manufacturing, jute textiles, sugar, general and electrical engineering, iron and steel, chemicals, vegetable oils, tobacco products, rubber and rubber manufacturing, cement, automobiles and coach building, and paper and paperboard.[132] In Egypt, the order of importance was : spinning and weaving, food products, petroleum products, chemicals, tobacco products, cotton ginning and pressing, transport equipments, non-metallic products, printing and publishing, footwear and other apparel, metal products, basic metal products, and paper and paperboard.[133] From these two lists, one can see that the order of importance as well as the composition of the industrial mix were more or less similar in the two countries, with few but important exceptions, namely, that jute and rubber were absent from the Egyptian list, and petroleum, from the Indian.[134] Also, in spite of the fact that steel industry was introduced in Egypt by the end of the period (1950), it was not

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(132) Gov. of India, Ministry of Information and Broadcasting, **India : A Reference Annual, 1957,** (Delhi, 1957), p. 190.

(133) National Bank of Egypt, **The Economy of the United Arab Republic During the Nineteen-Fifties,** (Cairo, 1963), pp. 92-93.

(134) However, there were rubber and jute industries in Egypt, and petroleum industry in India. But their contributions to total industrial value added were relatively very small. See, for India, Vakil, **Op. cit. ;** and for Egypt, Central Agency for Public Mobilization and Statistics, **The Annual Book of General Statistics of the United Arab Republic, 1952-1964, Op. cit.,** pp. 59 and 64.

at all on a comparable basis with the Indian which was relatively old, sizable and growing. [135]

These two lists are by and large in conformity with the information of Table III.18 above, namely, that consumer goods industries were the major contributors to total industrial output in 1946-50. Textiles industry was by far the largest single industry in terms of industrial value added and employment. [136] Nevertheless, consumer goods industries did not manage to meet a large part of the increasing domestic demand for their products, a fact which was reflected upon the composition of international trade of the two countries during this period, as will be discussed below.

Table III-A-3 and III-A-4 in Appendix A, below, give a detailed picture of the structure and changes (in term of physical production of principal lines) of industry in India and Egypt, during the period under discussion. From the data presented, one can see the degree of diversification of industry in each country, and the relative progress or otherwise made in each line. These data are in general agreement with those of Table III.17 above, with a slow growth (or even actual decline in the production of some lines) in the Indian case, and a steady and substantial growth in the Egyptian.

The relatively small share of industry in national economic activities and the composition of industrial production, mentioned above, reflected the state of industrial inputs, the degree of their utilization, and the problems facing industry in general

(135) However, it hardly met half of Indian (relatively low) steel requirements. See, for India, e.g., Ministry of Information and Broadcasting, **India : A Reference Annual, 1957, Op. Cit.;** and for Egypt, U.N., **The Development of Manufacturing Industry in Egypt..., Op. cit.,** pp. 61-68 and 95.

(136) As late as 1958 in India, the relative shares of textiles in total value added and employment for establishments employing 20 persons or more and using power were 38.9 per cent and 52.9 per cent, respectively. In 1954, the corresponding figures in the Egyptian case for establishments employing 10 persons or more were 42.9 per cent and 43 per cent, respectively. See, for India, Ministry of Finance, **India : Pocket Book of Economic Information, 1962, Op. cit.,** p. 59; and for Egypt, U.N., **The Development of Manufacturing Industry in Egypt..., Op. cit.,** p. 41.

in India and Egypt. Basically, factors of production were partly unutilized, underutilized and misutilized. The most striking example of this state of affairs is the industrial raw-material base, particularly minerals. The two countries have not adequately been surveyed for search of minerals. Nor have their agricultural structures been adjusted to meet the new, varied and growing industrial requirements. (137)

From the available discoveries, India seemed to be particularly rich in minerals (especially basic minerals such as iron ore and coal), but not Egypt. (138) However, given the existing known minerals, industry in the two countries did not grow enough to exploit these resources properly. The conventional reasons behind this situation, as detalied in Chapter I above, stem from the state of general economic underdevelopment. Important among them are dearth of entrepreneurial organization, crude technology, lack of capital, virtual absence of technical education, lack of skilled labour, relative narrowness of the internal market (essentially because of the relative low level of per capita real income), and a relatively weak competitive position in the international market.

The acute scarcity of capital was quite obvious. This can clearly be seen from the data of Tables III.5 and III.6 above. Not only was total national investment relatively small during this period, but also the relative share of industry in that total was not particularly large (for a serious industrial drive), especially in India. The relative share in the Egyptian case was

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(137) The important examples of this phenomenon were the virtual absence of jute, Wood and short-staple cotton in Egypt's agricultural production; and jute and partly cotton in India's. See, for India, e.g., Vakil, **Op. cit.** and for Egypt, e.g., Hansen and Marzouk, **Op. cit.,** and U.N., **The Development of Manufacturing Industry in Egypt,.., Op. cit.**

(138) For a detailed account on India's raw-material base, see Vakil, **Op. cit.,** pp. 185-223. Egypt has got iron ore (which would provide self-sufficiency for its industry), manganese ore (of which there are important exportable surpluses), some petroleum (which partly meets its low requirements), but not coal. For detailed account on Egypt's raw-material base, see, e.g., Central Agency for Public Mobilization and Statistics, **The Annual Book of General Statistics of the United Arab Republic, 1952-1964, Op. cit.,** pp. 55-56, and U.N., **The Development of Manufacturing Industry in Egypt..., Op. cit.,** pp. 11-17.

about three times as large as that in the Indian, a fact which may partially explain the relative performances of industry in the two countries, as discussed above.

However, from the scant information available, it seems that this very scarce resource was wastefully used in industry in the two countries. One of the familiar indicators of the density of capital in industry is capital-output ratio. Table III.20 below gives the capital-output ratios in five Egyptian and five Indian industries in 1950. From these data, it appears, as Professor V. Bhatt argues, that the capital intensity of the Egyptian and the Indian industries, contrary to theoretical expectation, "... does not seem to be significantly lower than the capital intensity of the corresponding industries of at least some of the developed countries." (139) Also, contrary to the common belief, the relatively more capital-intensive type of manufacturing establishment is the small factory using modern machinery and employing up to 50 workers. (140) In face of the particulars of the resources endowments of India and Egypt (see this Section above) this capital intensity in industry in general, and modern small establishments in particular, suggests a less efficient use of capital in the two countries during the period under discussion.

Leaving the inadequacy or even the absence of maintenance aside, the most striking feature of the relatively less efficient use of capital was the serious excess capacity in most industries in India and Egypt, as clearly shown in Table III.21 below. In a similar study, the U.N. has this to say on this point : "More efficient equipment is widely needed, but in view of the shortage of foreign exchange and the frequently uneconomical scale of units, it is arguable that, at least in certain industries, higher priority should be given to the correction of imbalance and more complete utilization of existing equipment, the more

(139) See V.V. Bhatt, «Capital-Output Ratios of Certain Industries : **A Comparative** Study of Certain Countries». **The Review of Economics and Statistics, Vol.** XXXVI, (August, 1954), p. 311.

(140) For details on this point see Dhar and Lydall, **Op. cit.**, pp. 11-20, for India ; and Hansen and Marzouk, **Op. cit.**, for Egypt.

so since experience has shown that these factors have a large influence on productivity than the type and age of machinery." (141)

TABLE III.20

CAPITAL-OUTPUT RATIO IN SOME INDUSTRIES

India		Egypt	
Industry	**Ratio**	**Industry**	**Ratio**
1. Sugar	2.2:1	1. Rubber Products	0.7:1
2. Cotton Textiles	2.9:1	2. Wood Products	0.8:1
3. Cement	3.0:1	3. Printing	2.1:1
4. Iron & Steel	4.0:1	4. Chemicals	2.3:1
5. Paper	7.1:1	5. Metallurgical and Transport Equipments	4.6:1
All Manufact. Industries	1.8:1	All Manufact. Industries	1.4:1

Notes: i — The corresponding figures for U.K. (1955) were: 4.2:1, 4.0:1, 1.6:1, 3.2:1, and 3.8:1 for Sugar, textiles (other than rayon), cement, iron and steel, and paper, respectively. See Sources for India.
ii — Data are for 1950, and arranged from the low density to the high.
iii — Capital = paid-up capital for Egypt, and replacement costs of fixed assets plus the necessary Working capital for India. Output = value added.

Sources: For India, G. Rosen, **Industrial Change in India,** (London: Asia Publishing House, 1958), pp. 74 and 99, and Dhar and Lydall, **Op. cit.,** p. 18; and for Egypt, U.N., **The Development of Manufacturing Industry in Egypt..., Op. cit.,** p. 43.

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(141) U.N., **The Development of Manufacturing Industry in Egypt..., Op. cit.,** p. 81.

TABLE III.21

UNUTILIZED CAPACITY IN INDUSTRY

(As a Percentage of Installed Capacity)

India		Egypt	
Industry	**%**	**Industry**	**%**
1. Sugar	12	1. Sugar	32
2. Wheat Flour	62	2. Fruit Preserving	94
3. Vegetable Oil Products	46	3. Vegetable Canneries	92
4. Cotton Cloth (Mill-made)	22	4. Breweries	76
5. Soap	64	5. Soap	65
6. Jute	26	6. Cotton-seed Oil	34
7. Paper & Paper Boards	8	7. Paper & Paper Boards	30
8. Cement	16	8. Cement	30
9. Ammonium Sulphate	88	9. Fertilizers	48
10. Pig Iron	16	10. Iron & Steel Rolling-mills	56

Note: Data are for 1950, in the Indian case; and for the annual average of 1952-54, in the Egyptian.

Sources: For India, Gov. of India, Planning Commission, Economic Division, "Installed Capacity and its Utilization in Indian Industries", in Gov. of India, Planning Commission, **Papers Related to the Formulation of the Second Five Year Plan,** (New Delhi, 1955), pp. 175 and 186-97; and for Egypt, U.N., **The Development of Manufacturing Industry in Egypt..., Op. cit.,** p. 81, Table 70.

Another important input in industry is power. Power supply plays a crucial role in the development of manufacturing in any country. In Egypt, nearly all electricity was generated from petroleum (a considerable part of which was imported); and in India, from coal (of which there were sizable reserves). In both countries, total production of electricity substantially increased during the period under discussion.[142] Most of this

(142) In millions of Kilowatt-hours, Egyptian production increased frrom 431 in 1946 to 881 in 1950. The corresponding Indian figures were 3892 and 4157, respectively. See, for India, Vakil, **Op. cit.,** pp. 225-26, and Ministry of Finance, **India, 1962, Op. cit.,** p. 48; and for Egypt, U.N., **The Development of Manufacturing Industry.., Op. cit.** p. 77.

total (roughly about two thirds in each country in 1950) was consumed by industry. [143] However, electricity was a relatively high-cost input in industry in both countries. The average rates of electricity for industry, in U.S.A. Cents per Kilowatt-hour, were 1.3 in Egypt (1954) and 0.9 in India (1949), compared with, e.g., 0.8 in U.S.A. (1951), 0.6 in Italy (1952), and 0.5 in Sweden (1952). [144] This high cost of electricity in the two countries was one of the obstacles for faster growth of manufacturing in general, and for increasing its degree of competitiveness in the international market in particular.

With respect to labour, the relative share of industry in the two countries in total national working force was very small, as shown in Table III.4 above. Industrial labour was suffering from misemployment, [145] underemployment and unemployment. Underemployment was estimated as about 10 per cent of working time, in Egypt, and about 11 per cent of labour force, in India. [146] On unemployment, the meagre data available suggest that it was probably something between 5-10 per cent in each country. [147] So, it seems that industry in India and Egypt, having had a sizable labour problem of its own, did virtually nothing to ease the increasing population pressure on land.

Labour productivity in industry, though relatively higher than those in other sectors of the economy (see Table III.4

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(143) See, for India, Ministry of Finance, **Op. cit.**, p. 48 ; and for Egypt, U.N., **The Development of Manufacturing Industry...**, **Op. cit.**, p. 77.

(144) National Currencies are converted at official exchange rates. See Planning Commission, **The First Five Year Plan, Op. cit.**, p. 360 ; and U.N., **The Development of Manufacturing Industry...**, **Op. cit.**, p. 78.

(145) This problem can easily be observed in the two countries. An indication of its existence is the so-called "educated unemployment" in the two countries. See, for India, e.g., Planning Commission, **The First Five Year Plan, Op. cit.** ; and for Egypt, e.g., Issawi, **Egypt in Revolution:...**, **Op. cit.**

(146) For Egypt, the figure is for 1958. See National Bank of Egypt, **Economic Bulletin**, Vol. XIII, (Cairo, 1960). For India, the figure is for 1956. See W. Malenbaum, "Urban Unemployment in India," **Pacific Affairs**, Vol. XXX, (June, 1957), pp. 138-50.

(147) Total urban unemployment was estimated as 10 per cent in India (1956) and 5-7 per cent in Egypt (1957/58). The corresponding figures for big cities were 18.4 per cent and 7 per cent for India and Egypt, respectively. See, for India, Malembaum, "Urban Unemployment...", **Op. cit.** ; and for Egypt, Hansen and Marzouk, **Op. cit.**, p. 161.

above), was desperately low in comparison with those in industrially advanced countries.[148] However, it is a common view that in countries like India and Egypt industrial labour is relatively cheaper (in terms of wage costs) than that in developed countries. Indeed, the shares of wages in both total industrial costs and value added were relatively low in India and Egypt, as shown in Table III.18 above.[149] But this relatively low cost of labour was largely cancelled out by the relatively low labour productivity, together with many other unfavourable factors. Important among them were large unskilled percentage in total labour force, high costs of training, a relatively high turnover of labour and a relatively high rate of absenteeism.[150] So, it is not an exaggeration to suggest that labour in the two countries on the whole was an expensive input rather than a cheap one.

There were other factors which seriously contributed to the relatively high costs of industrial production in India and Egypt. Important among them were high prices of imported raw materials, particularly in the Egyptian case ;[151] poor en-

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(148) For example, value added per worker in manufacturing was £176 in India (1951) and £312 in Egypt (1950), compared with £595 in U.S.A. in, as early as, 1937 — national figures are at current national prices and converted at official exchange rates. See Gov. of India, Central Statistical Organization, **Statistical Hand Book of the Indian Union,** No. 4, (New Delhi, 1960), pp. 84-85 ; Said, **Op. cit.,** pp. 197 and 201 ; and U.N., **The Development of Manufacturing Industry......, Op. cit.,** pp. 70 and 117. Though Egyptian productivity appears to be appreciably higher than the Indian, Professor Harbison and Dr. Ibrahim have this to say on the former, "In many factories which we visited in Egypt, **six to eight workers** were employed to produce what **one, with comparable machinery and equipment,** would turn out in the United States." See F. Harbison and I.A. Ibrahim, **Human Resources for Egyptian Enterprises,** (New York : McGraw-Hill, 1958), p. 136, (my italics).

(149) Also, in 1954, the average hourly earnings in manufacturing, in U.S. Cents, were 11 for Egypt, 10 for India, 181 for U.S.A., 141 for Canada, 76 for Sweden, and 52 for U.K. See U.N., **The Development of Manufacturing Industry......, Op. cit.,** p. 75.

(150) Rate of absenteeism was about 9 per cent in some industries in Egypt (1946) ; and was as high as 13 per cent in Tramway workshops, 12 per cent in Cement factories, and 11 per cent in Iron and Steel industry in India (1951). See, for Egypt, Issawi, **Egypt in Revolution:..., Op. cit.,** p. 190 ; and for India, Central Statistical Organization, **Statistical Hand Book...., Op. cit.,** p. 119.

(151) See for details, e.g., U.N., **The Development of Manufacturing Industry...., Op. cit.,** particularly, pp. 79-80.

trepreneurial organization ;[152] and inadequate and high-cost transport facilities, as will be discussed below. In sum, industry in India and Egypt, though expanding, was still very small by 1950. Unless costs of production substantially decline — through structural changes in both the input and the output sides of the production process, the possibility of a serious drive to industrialize the two countries, let alone the urgent need to increase the degree of competitiveness of the two countries' industries in the international market, will be very remote, indeed.

With respect to **services,** one can see their relative importance in terms of national income, working force and livelihood in India and Egypt from Table III.4 above. This vital sector covers a wide range of activities from transport and communications, housing, commerce, education, health services; to public administration, preserving law and order, social programmes, etc. The proper functioning of each of these activities as well as its "reasonable" growth are widely accepted as indispensable for economic development of any country.

In terms of national income, the relative contribution of this sector was only second to agriculture in India, and the first in Egypt. In terms of national working force and livelihood, its relative contribution was only second to agriculture in both countries. From the data of Table III.6 above, the relative share of services in total national investment was by far the largest, in both countries. Bearing in mind the relative stages of economic development of the two countries, the relative emphasis on services seems to have been rather excessive — in spite of the fact that this period was a post-war re-construction period.

In terms of productivity, the data of Table III.4 suggest that it was much higher than that of agriculture, a little higher

(152) This was largely due to the unfavourable factor environment in the two countries, the basic features of which more or less correspond to the description of this factor in Chapter I above. For details, see, e.g., Harbison and Ibrahim, **Op. cit.,** pp. 50-67, for Egypt; and W. Malenbaum, **Prospects for Indian Development,** (London: Allen and Unwin, 1962). pp. 154-59, for India.

than that of industry in India, and a little lower than that of industry in Egypt. From these data, it seems that services in India, were by and large more efficient than that in Egypt. Also, it appears that the dependency ration in Indian services was a little lower than that in the Egyptian. This may suggest a more serious population pressure on this sector in the Egyptian case than in the Indian. (153) However, in both cases, this pressure was appreciably lesser than that experienced by agriculture.

Without going into each of the activities of this sector in detail, (mainly because of the acute dearth of data), Table III.22 below gives us a general idea about the relative levels of some of these activities in India and Egypt, together with those in two developed countries, during the period under discussion.

As mentioned in section I above, India and Egypt, for the last half century or so, were not seriously handicapped by inadequate transport facilities. With a concentration of population and economic activities near the Nile and a network of canals navigable for most of the year, Egypt was in a more favourable position in this respect than India. Roads were the weakest link in Egypt's transport system. (154) One of the main causes of this is that most of the canals and roads run parallel to railways, thus causing duplication and making competition among the three kinds of transport inevitable. Road transport in India was not in a much more favourable position than that in Egypt. There were roughly 250,000 miles of extra-municipal roads of which surfaced roads were only about 4 per cent. (155) The corresponding Egyptian figure was about 7 per cent. (156)

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(153) The data on employment problems in the industrial sector presented in this section above are (as stated) for "Urban Sector." These data consequently may partially shed some light on the employment situation in services in the two countries. See footnotes (146) and (147) above.

(154) There were only 7 Kms. of road for every 10,000 inhabitants. See Issawi, **Egypt in Revolution:..., Op. cit.**, p. 205; and for an excellent account on transport and communications in Egypt, pp. 199-220.

(155) See Vakil, **Op. cit.**, pp. 402-30.

(156) See Issawi, **Egypt in Revolution..., Op. cit.**, pp. 204-05.

TABLE III.22: **SOME INDICATORS OF SERVICES**

Item	India	Egypt	Italy	U.K.
I — Transport				
1. Railway passenger Kilometres per capita	178	73	466	786
2. Passenger cars per 10,000 persons	4	21	48	475
II — Education				
3. Percentage of illiteracy (among persons 10 years of age and over)	83	74	14	5
4. No. of pupils per teacher in elementary Schools	32	28	28	31
5. Apparent consumption of newsprint (in hectogrammes per capita per annum)	2	7	16	120
6. Radios per 1,000 persons	1	9	62	243
III — Health				
7. Infant mortality per 1000	185	139	73	36
8. No. of doctors per 10,000 persons	2	3	12	...
9. No. of hospital beds per 10,000 persons	3	10	80	100

Notes: i — (...) = not available.
ii — Data are for 1948, except items (4) and (6) for Egypt, (4) for India and (6) for Italy which are for 1950. Also, items (3) and (4) for Italy and (3) for India are for 1951.
iii — For U.K., item (9) is only for hospitals operated by the National Health Services.

Sources: U.N., **The Development of Manufacturing Industry...., Op. cit.,** pp. 2-3, and **Demographic Yearbook, 1955,** (New York, 1955), Table 13 and Table III.2, above.

In both countries railways were the principal means of transport. It was owned and run by the State. From Table III.23 below, one can see that total mileage was virtually constant during 1946-50. Quantitative information on such important questions as the state and age of the equipment used, the degree of replacement, etc., are virtually absent. However, it is generally accepted that increased traffic during the war,

coupled with virtual absence of replacement, put a heavy strain on rolling-stock; and in the early post-war years railways were not allowed enough funds for replacement.(157) This factor, among others, contributed to the low efficiency (in terms of speed, punctuality and availability of specialized equipment), as well as to the relatively high prices of trasport services in the two countries. In sum, to use Professor Mahalanobis's words, "Transport ... has a good base but it extremely inadequate,"(158) in the two countries.

TABLE III.23: **RAILWAYS ROUTE MILEAGE**

(In 000' Kms.)

Country	1946	1950
India	54.0	55.0
Egypt	6.8	7.1

Notes : i — Data of 1946 are for 1945/46 for India, and 1945 for Egypt.
ii — Data of 1950 are for 1950/51 for India, and 1949 for Egypt.

Sources : For India, Vakil, **Op. cit.,** p. 402, and Central Statistical Organization, **Statistical Pocket Book of the Indian Union, 1962,** (New Delhi, 1962), p. 81; and for Egypt, Issawi, **Egypt in Revolution..., Op. cit.,** p. 200.

The structure and changes of the Indian and Egyptian economies in general, and their commodity sectors in particular, analysed above, have naturally affected if not entirely determined the structure, size, and magnitude of change of **foreign trade** of the two countries during the period under discussion. The predominance of agriculture, the insufficiency of food production in face of rapidly growing population, the small but ex-

(157) The relative share of transport and communications in total national investment in 1946-50 (which was itself quite small, see Table III.5 above) was rather small, particularly in India as shown in Table III.6 above. For details on the state of equipment and its replacement, see Vakil, **Op. cit.,** and Mahalanobis, **Op. cit.,** for India; and Issawi, **Egypt in Revolution..., Op. cit.,** and U.N., **The Development of Manufacturing Industry..., Op. cit.,** for Egypt.

(158) Mahalanobis, **Op. cit.,** p. 15. Because of poor transport facilities, during this period, Egypt imported glass sand and left its own unexploited. This famous example is cited in U.N., **The Development of Manufacturing Industry..., Op. cit.,** p. 77.

panding industrial sector, and the relative shortage of industrial raw materials, particularly in Egypt, largely determined the composition of exports and imports of the two countries. Table III.24 below shows the structure of foreign trade in India and Egypt, and consequently reveals the basic features of their economies, just mentioned.

TABLE III.24: **EXPORTS AND IMPORTS BY MAIN COMMODITY GROUPS**

(In Percentages)

Commodity Group	Exports		Imports	
	India	Egypt	India	Egypt
1. Food, beverages & tobacco and tobacco	24	3.2	26	30.4
2. Raw materials	23	86.3	24	29.1
3. Manufactured goods	52	2.4	49	36.3
4. Others	1	8.1	1	4.3
Total	100	100.0	100	100.0

Notes: i — Indian data are for 1949/50; and the Egyptian, for 1953.
ii — For Egypt, item I of exports is vegetables, II, raw cotton (85.6 per cent) and some minerals, and III, cotton products and cement.
iii — For India, item I of exports includes spices, tea, coffee and tobacco; II, oilseeds, raw cotton, hides and skins, and minerals; and III, jute, cotton and oil products.
iv — For both countries, item I of imports mainly includes foodgrains and other foodstuffs; II, industrial raw materials; and III, industrial consumer and capital goods (with the latter having a larger share in the total of the item, see Sources).

Sources: For India, Gov. of India, Ministry of Commerce, **Annual Statement of the Foreign Sea-borne Trade of India, Vol. I, 1950,** (New Delhi, 1950), and Planning Commission, **The First Five Year Plan, Op. cit.,** p. 454; and for Egypt, Hansen and Marzouk, **Op. cit.,** pp. 182-83.

From these data, it seems that the structure of Indian foreign trade was more or less in a better state than the Egyptian. This is so either from the point of view of the dependency on certain commodity or commodities, or from that of the relative share of industrial products in total exports.

Egypt heavily depended upon one crop, namely, cotton. Cotton was by far the biggest cash crop in the country and dominated the export revenues, a fact which was always exposing the Egyptian economy to heavy fluctuations.(159) With respect to industrial exports, the data suggest that Egypt rated very poorly relative to India. However, one should not read too much in these data. Apart from two or three traditional products (cotton textiles, jute products and vegetable oils), India still remained with the trading features of a primitive primary-producing economy. With respect to imports, in both countries, industrial imports were rather heavy, but a larger part of it consisted of producer and capital goods.

The relative importance of foreign trade and its relative performance can be more clearly seen in relation to national production. Table III.25 below gives us the percentages of exports and imports to G.N.P. in 1946-50. From this table, one can see the relative importance of foreign trade to the economy, in each country. Foreign trade was much more important to the Egyptian economy than to the Indian. However, both countries were on the whole net importers, a fact which might reflect the growing food problem as well as the beginning of some development activities (see note (iv) to Table III.42 above). In general, unless Egypt and India make their manufactured articles more competitive there is no hope of changing the foreign trade structure in the foreseeable future. As it is, the inevitable outcome will probably be a serious balance of payments problems which in turn may prove to be a serious limiting factor to the process of economic development in the two countries.

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(159) For details on this point, see, e.g., Hansen and Marzouk, *Op. cit.*, pp. 172-87; and Mead, *Op. cit.*, pp. 157-92.

TABLE III.25 :

EXPORTS AND IMPORTS IN RELATION TO G.N.P.

(As a % of G.N.P.)

Item	1946		1947		1948		1949		1950	
	India	Egypt	India	Egypt	India	Egypt	India	Egypt	India	Egypt
1. Exports	...	12.3	...	14.5	6.0	18.9	6.2	15.8	7.1	18.2
2. Imports	...	14.2	...	16.1	8.8	21.2	6.8	19.1	6.9	20.8
Total	...	26.5	...	30.6	14.8	40.1	13.0	34.9	14.0	39.0

Notes : i — (...) = not available.
ii — Data are based on current price figures.
iii — For India, the above data are for 1948/49, 1949/50 and 1950/51, respectively.

Sources : For India, Central Statistical Organization, **Estimates of National Income...**, **Op. cit.**, p. 7 ; and for Egypt, Hansen and Marzouk, **Op. cit.**, p. 174.

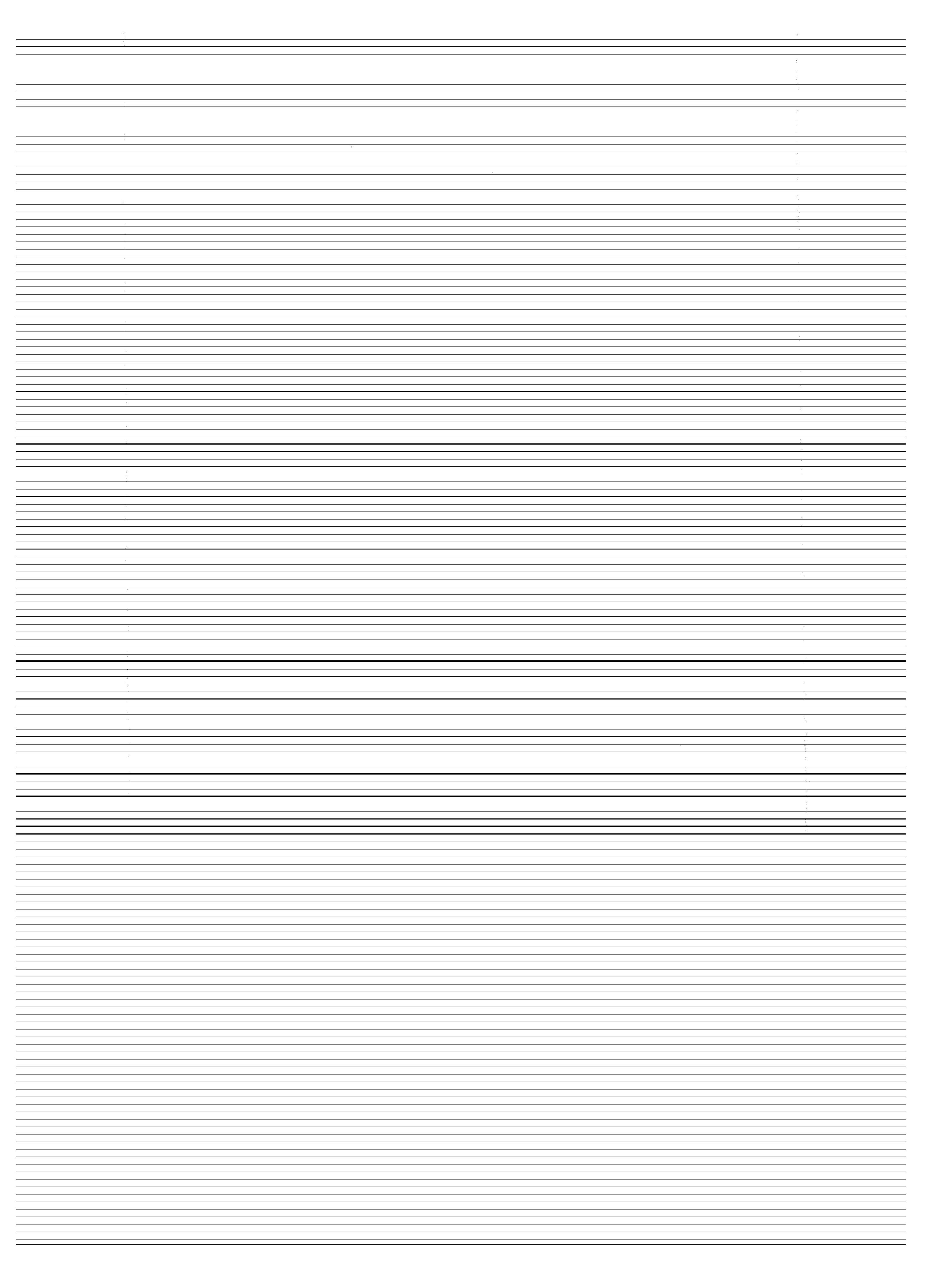
In the foregoing discussion, the basic features, capabilities and limitations of the Indian and the Egyptian economies have been reviewed in general, and the nature and implications of the fundamental economic problems in the two countries have been specified in particular. The structure and changes of the two economies have been analysed in some detail during 1946,50, as it is, as mentioned above, the five-year period immediately before the Indian and the Egyptian planning experiences began.

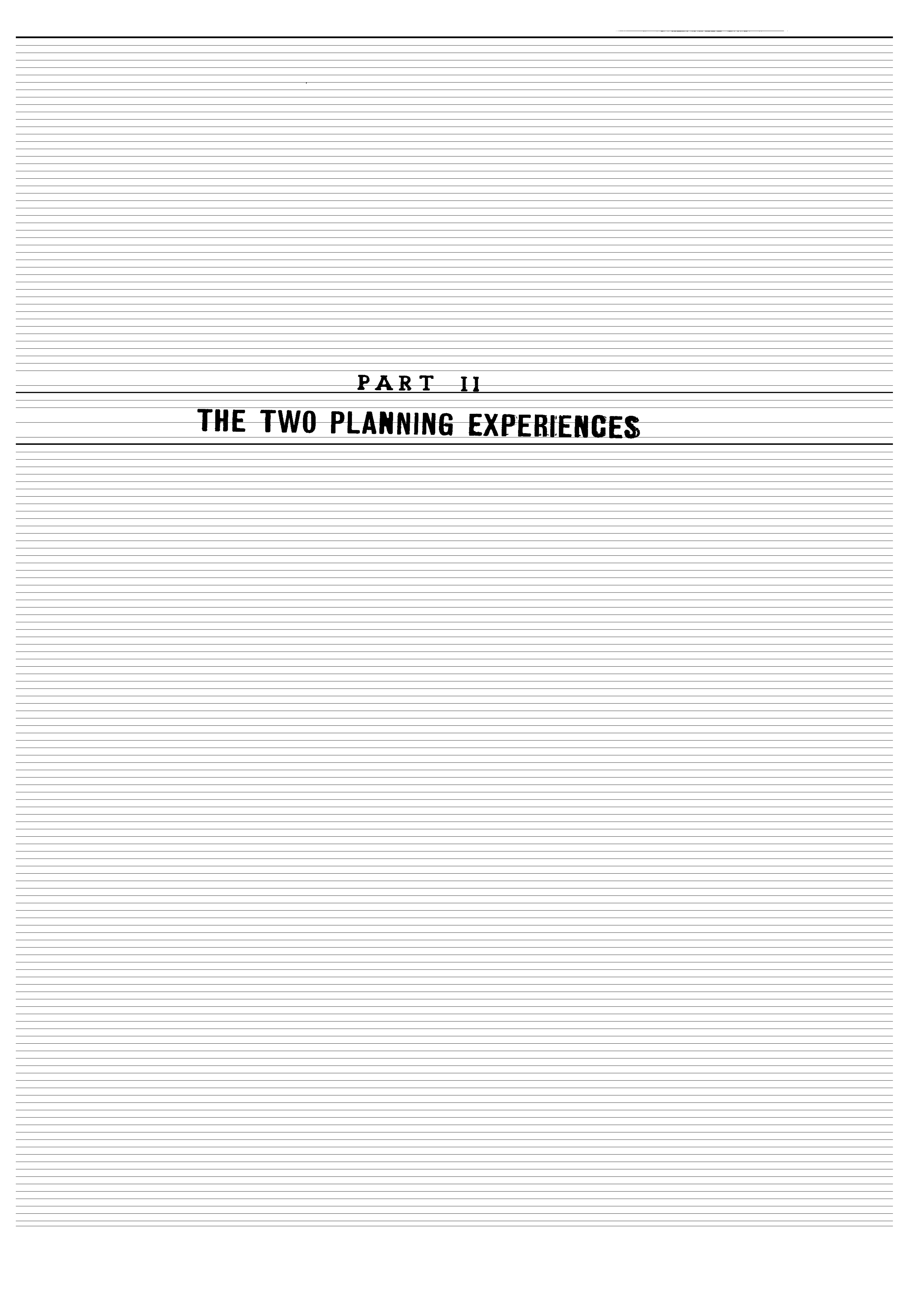
During this period, the government in each country has tried (though often unsuccessfully) to encourage the national drive for economic development. However, apart from its (sometimes excessive) protective tariff policy, its limited public works [160] and some blue prints either for the economy as a whole or for one of its sectors, [161] the government was by and large "neutral" as far as economic activities were concerned.

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(160) See this Chapter above, particularly Table III.5.
(161) As will be discussed in Chapter IV below.

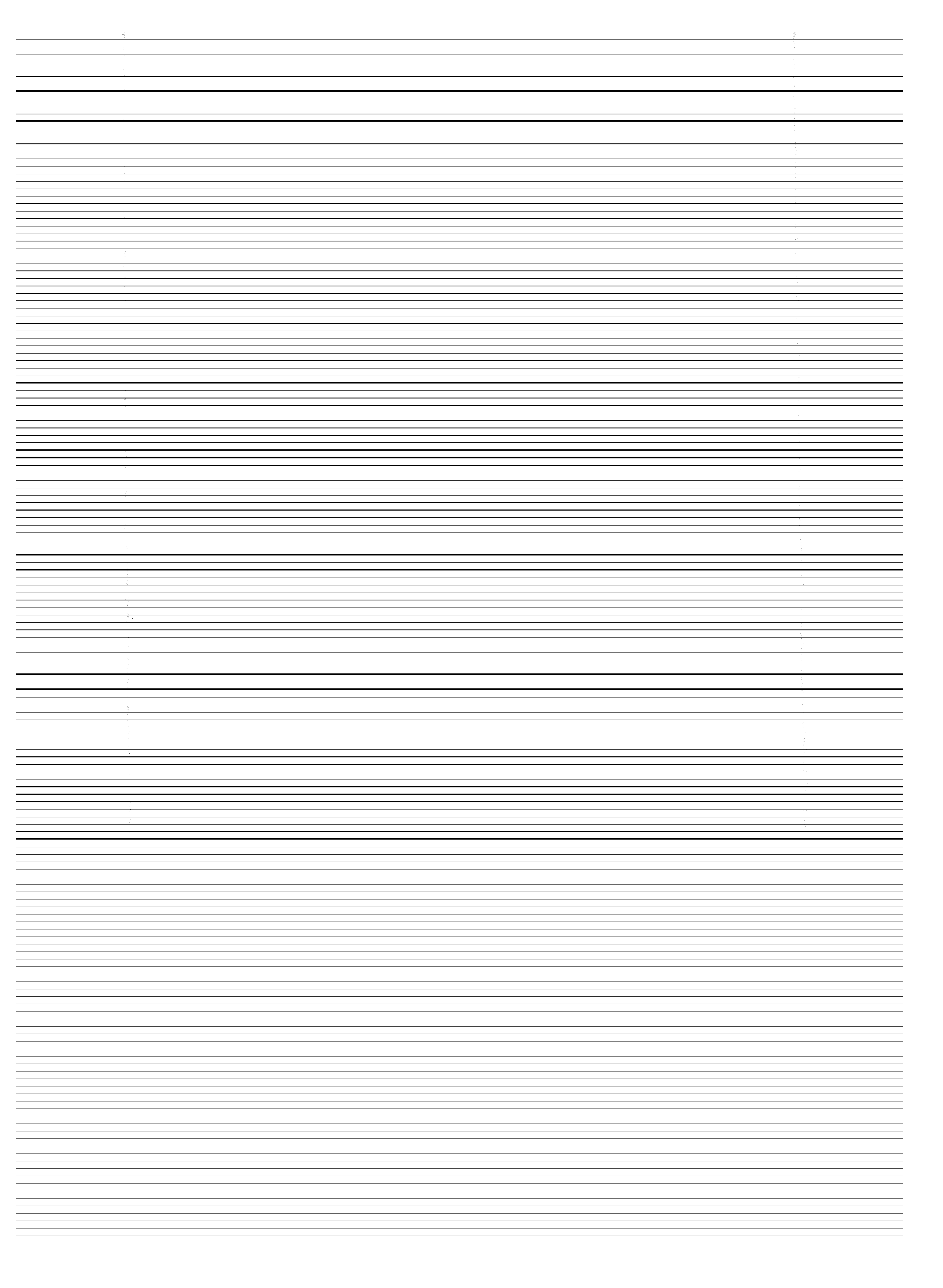
There are no good reasons to suggest that government policies or activities had drastically changed during this period from those prevailing during 1900-1945, briefly mentioned in Section I above. However, basic government economic policies in general, and its attitude towards economic development and planning in particular, during the past half century or so will be further discussed in next chapter which will be devoted to a review of the history of, and the official views on economic planning as a tool of policy.





PART II

THE TWO PLANNING EXPERIENCES



CHAPTER IV

PLANNING HISTORY AND PHILOSOPHY

I look upon an increase in the power of the State with the greatest of fear, because, although while apparently doing good by minimizing exploitation, it does the greatest harm to mankind by destroying individuality which lies at the root of all progress.

MAHATMA GANDHI.

Homer A. Jack, (ed.), **The Wits and Wisdom of Gandhi,** (Boston : Beacon Press, 1951).

The new leaderships must be aware of their social role. The gravest danger to which they can possibly be exposed at this stage is for them to deviate from their right path and imagine themselves to represent a new class that has replaced the old and has taken over its privleges.

GAMAL ABDEL-NASSER, "The Charter", (1962).

The purpose of this chapter is to deal with two basic questions namely :

1) when did government planning for economic development take place in India and Egypt, and
2) what type of planning was exercised in each country ?

The first question is about the history of economic planning in each country, and the second, about its philosophy from the "official" point of view.

As the main concern of this study is the two planning experiences during the 1950's and the 1960's and as the outline, methods and strategy of planning during this period will be analysed in some detail in Chapter V and VI below, the following discussion will be very briefly conducted, with some emphasis on earlier planning attempts with respect to the first question, and on government views with respect to the second.

I — PLANNING HISTORY

In general, planning on a national level is of recent origin the world over. India and Egypt are no exceptions. Before 1950, apart from the experience of the Vizier Joseph [1] and the attempt of Muhammad Ali [2] in Egypt, and some financial devices of the East India Company and consequently of the British government of India [3] in India, there was practically no planning experience in the sense of formulated and implemented plans for economic development in the two countries. However, during the first half of this century, there was quite a number of "planning" ideas in both countries. Some of these ideas were actually translated into development plans, particularly in India, during the last decade of this period. But none of these plans passed the stage of formulation into implementation — except an Egyptian one which was partially implemented, as will be discussed below. Nevertheless, these ideas and blueprints were quite important as a background to later planning activities during the 1950's. [4]

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(1) As an Egyptian official, Joseph was a "miraculous" minister of planning. He successfully planned Egypt's economic life for fourteen years. Having set and implemented two seven-year Plans, he saved Egypt from a sure famine in the Second Plan by his efficient collective storing of harvests in the First and his equally efficient distribution of these harvests in the Second. See **Al-Koran,** Surat : Joseph, Chapter 12, Verses No. 42-56, (In Arabic) ; and **The Book of Genesis,** Chapter XLI, Verses No. 1-57.

(2) For this earliest centralized planning attempt in modern history, see references cited in Chapter III, Section I, above.

(3) For detailed account on these devices, see Chapter III, Section I, above, and references cited there.

(4) As will be mentioned in this Chapter as well as in Chapter V, below.

Broadly speaking, up to 1950, while Indian planning was a rather intellectual exercise that was largely divorced from reality, the Egyptian was mainly a continuing but frustrating attempt to formulate and implement plans for national economic development. The evidence of this general assertion is quite clear from the following chronological discussion of the two cases.

In **Egypt,** before the 1950's, national planning was by and large an abortive attempt to develop the economy. In fact, several attempts to establish a general development agency and formulate a plan for national economic development are on record since 1924 when Parliament decreed that "public reserve funds should be kept intact until a general programme of development in the public sector was drawn." [5] This programme was not drawn until 1935, when a draft of a number of projects was submitted but never enacted. [6] In 1936, a limited programme of public works (roads and barracks) was voted for military reasons. In 1938, a decision was taken to prepare a three-year programme of public investments. But the threat of World War II and the outbreak of hostilities in 1939 hindered the implementation of this decision. [7] Instead, and in the light of war circumstances, several councils and committees were formed in 1940-44 to draw up plans of development, but without much success. However, the work of these bodies has probably helped in the preparation of **the five-year development plan** which was launched immediately after the war (in 1946) **for the period 1946/47-1950/51.** [8]

This plan was basically a post-war reconstruction programme for public works, with large emphasis on irrigation, transport and housing. It was primitive in formulation and very modest in

(5) A.M. El-Morshidy, "Planning for Economic Development in the United Arab Republic," in U.N., **Planning for Economic Development, Vol. II, Part I, Op. cit.,** p. 164.
(6) See El-Morshidy, **Op. cit.,** p. 164.
(7) See El-Morshidy, **Op. cit.,** p. 165.
(8) For a detailed account on this plan, see M.M. Hogier, "The Five-Year Programmes of Development in the Past Regime 1944/45-1950/51", the National Planning Commission, **Memo. No. 69,** (Cairo, 1958), (in Arabic), pp. 1-28.

size — in relation to what was needed and to the available resources. It ended up with about 50 per cent of its targets unfulfilled. The statistics of this small exercise are shown in Tables IV-A-5 and IV-A-6 in Appendix A below.

A planning agency, the Development Programme Committee, was established from the Under-Secretaries of the six ministries which were involved in the formulation and implementation of the plan. [9] The task of this agency was to examine the projects suggested by various ministries and to choose from them the projects which would be incorporated into the plan. The choice had to be made in the light of some general objectives set for the plan by the Council of Ministers, and according to some vague criteria. These objectives were to increase national income, and to expand employment opportunities. The investment criteria were :

1) high and quick return in terms of national income and employment, and

2) the possibility of implementation during the five-year period. But how these factors had been weighted against each other with respect to each project, and among the projects considered, was anybody's guess. Once chosen, the implementation of the approved projects was in the hands of the ministries concerned. The evaluation of plan progress had to be annually conducted by the Financial Committee of the Chamber of Deputies. [10]

After various modifications, total investment of the plan was estimated to be about L.E. 52.5 million as shown in Table IV-A-5, just mentioned. This total outlay was allocated among the various projects of the plan which were mainly overhead, public utilities and social services' projects — covering practically

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(9) These ministries were the Ministry of Finance, the Ministry of Agriculture, the Ministry of Trade and Industry, the Ministry of Transport, the Ministry of Public Works and the Ministry of Social Services. See Hogier, **Op. cit.**

(10) It was the Egyptian House of Commons.

all sectors of the economy. The share of irrigation and agriculture was 24.6 per cent of the total (revised) outlay, and that of transport and communications, 27.8 per cent. The rest (about 47.6 per cent) was for construction and housing (30.3 per cent), electricity, industry and trade, and other services including health and education, as specified in Table IV-A-5. This outlay was to be entirely financed from internal resources. As shown in Table IV-A-6, mentioned above, the major source of finance was the government reserve funds which were expected to contribute about 72.5 per cent of the total financial resources required. The rest was to come from domestic borrowing, government profits from cotton and other transactions, and the surplus of the "ordinary" State budget.

This planned outlay was very small relative to the financial resources available to the government [11], and as a percentage of national income. Annually, it is estimated to be about 1.2 per cent of gross national income. [12] In spite of this, the government reconsidered the plan outline and finally divided its projects into two groups. The first group was called "urgent" projects, and the second, "long-term" projects. Without providing any definition of what makes certain projects "urgent" and others "not urgent", the government allocated for the first group L.E. 25 million from public reserve funds, and considered the second group as aimed at projects to be implemented if the financial resources and technical skill available (to the government) permitted. [13] This gives an idea of how under-estimated, limited and arbitrary this kind of planning was.

However, in 1949, the Finance Committee of the Chamber of Deputies reported that out of total allocation of L.E. 24 million during the first three years, only L.E. 12.5 million, or about 52 per cent had been spent. The Committee attributed this

(11) Particularly, continuing surplus in the State budget, increasing public reserve funds, and the large Sterling balances. See Chapter III above; and Hogier, **Op. cit.**

(12) Even if investments appropriated in the State budget for "new works" were included the percentage would remain very small. For aggregate data, see Chapter III, Section II, above, particularly Table III.5. Also, see Hogier, **Op. cit.**, pp. 20-21.

(13) Hogier, **Op. cit.**, p. 20.

underspending to difficulties encountered in importing the necessary materials, the inability of certain government departments to cope with the additional tasks involved by the new projects, and insufficient technical and financial preparations.[14]

By the end of the five years, out of total outlay of L.E. 52.5 million, only L.E. 27.2 million, or about 51.8 per cent, had been spent during the plan period. The allocation of actual outlay by sector is shown in Table IV-A-5. All in all, this plan was rather a practical exercise to test the ability of government machinery and other institutions, than to have its mark on the economy. Small as it was, its implementation clearly showed the disabilities and limitations of government departments in this field. The favourable performance of the economy (particularly in industry) during the period of the plan, as analysed in Chapter III above, was basically due to the initiative and effort of private enterprise.

The government, however, tried to create an encouraging atmosphere for private enterprise to work. Apart from its protective tariffs, it formed an industrial bank in 1949 to provide financial facilities for industry.[15] To coordinate its limited economic activities, the government created the Ministry of National Economy in 1950.[16] The government concentrated its efforts on basic and infra structural projects. A long-term irrigation plan consisted of several major projects was under study. In fact, a mission from the International Bank arrived towards the end of June, 1951, having been invited to study the

(14) See National Bank of Egypt, **Economic Bulletin,** Vol. II, (Cairo, 1949), p. 83; A. Cumberbatch, **Egypt: Economic and Commercial Conditions in Egypt, October, 1951;** Overseas Economic Surveys, (London: H.M.S.O. 1952), p. 24; and Hogier, **Op. cit.,** pp. 25-28.

(15) In fact, this bank was a project in the plan, just discussed; and constituted, together with the establishment of a scientific and Industrial Institute, the whole industrial part of that plan. See Hogier, **Op. cit.,** p. 9.

(16) It consisted of the old departments of State Domains, Statistics, Tourism, Fisheries and the office of the Egyptian Economic Expert in the Sudan; as well as a new department which was called the Department of Industrial Economy — to collect reports of international economic and social trends that have a bearing on the Egyptian Economy, and to have some control over Egyptian Commercial Attachés abroad.

irrigation projects, with a view to the possible granting of a loan.[17] Furthermore, a programme for reconstructing the railway system was approved in 1951. Its costs were to be effected from the State budgets of the years 1951/52, 1952/53 and 1953/54. A small "Société d'Etudes" consisting of four Egyptian industrialists and the Under Secretary for Commerce and Industry was also formed in 1949 to study the iron and steel projects.[18]

However, these plans and projects remained at the study stage by 1952. Nevertheless, they were invaluable from the educational side of planning. They also greatly helped as a background for the concrete programmes and projects formulated during the 1950's.

In **India,** planning was advocated much before independence; but it remained as an idea rather than a tool of economic policy until the establishment of the Indian Planning Commission in March, 1950.

In a pioneering work, **Planned Economy for India**, (1934), M. Visvesvaraya advocated the necessity for the planned economic development of India.[19] Within the decade just prior to 1947, no less than 62 plans had been suggested.[20] These so-called plans were no more than expressions of the ambitions of a particular section of people — with regard to certain industry, sector, state, or the country as a whole. They lacked defined targets, capital requirements, or requirements of financial resources.

In a conference of the Ministers of Industries of various provinces held in October, 1938, under the chairmanship of the then President of the Indian National Congress, Subhash Chandra Bose, it was resolved that a Planning Committee should be appointed. In pursuance of this resolution, Bose set up, on behalf

(17) For details on these projects, see Cumberbatch, **Op. cit.,** pp. 70-71.
(18) See Cumberbatch, **Op. cit.,** pp. 56-57.
(19) Ministry of Information and Broadcasting, **India:..., 1957, Op. cit.,** p. 197.
(20) See G.P. Khare, **Planning in India,** (Allahabad : Kitab Mahal, 1958), p 30.

of the Indian National Congress, a National Planning Committee with Nehru as its chairman. The task of this committee was to "inquire into the possibilities of planned economic development in India and to suggest practical schemes for this purpose."[21]

The committee set up 29 sub-committees to make a detailed study of various aspects of India's economic problems. The work of this Committee was however interrupted because of World War II and the internal political disturbances.[22] Though the committee did not succeed in producing a blueprint of a national plan, it produced a number of interim reports on different aspects of the economy. These reports provided valuable materials for further planning attempts.

In 1941, the British Government of India began considering plans for post-war reconstruction. Between 1941 and 1944 various committees and departments were established within the government. Their task was to prepare five-year plans for India's economic development. In addition, provincial and State governments were preparing plans for development within their respective fields.[23] In 1944 the British Government of India established a Planning and Development Department. The task of this department was to study the plans of these various agencies and groups in order to prepare for post-war reconstruction and to formulate a programme for the future economic development of the country. Accordingly, the department appointed a number of panels. These panels were to make recommendations covering the possibilities of development, location, organization, government regulation and control. This effort produced the Government Industrial Policy Resolution of 1945,[24] together with a number of detailed studies of different aspects of the economy.[25] Valuable as they were, these studies,

(21) Ministry of Information and Broadcasting, **India:..., 1957, Op. cit.**, p. 197.
(22) For more details, see S.R. Sen, "History of Planning in India," **published paper**, Gov. of India, Planning Commission, (New Delhi, 1962), p. 2.
(23) See N.V. Sovani, **Planning of Post-War Economic Development in India**, (Poona : Gokhale Institute of Politics and Economics, 1951), p. 18.
(24) For a brief account on this Resolution, see this Chapter, Section II below.
(25) Sen, **Op. cit.**, p. 3 ; and Sovani, **Planning..., Op. cit.**, p. 3.

in Dr. Sen's words, "...were not integrated into a comprehensive plan for the development of the national economy." [26]

About the same time of the establishment of the Department of Planning and Development (1944), three important "private" investigations on national planning for development were released. These are the three national plans : the Bombay Plan, the People's Plan, and the Gandhian Plan. These plans marked the beginning of economic planning on a national scale in India. The statistics of these three Plans are shown in Tables IV-A-7 and IV-A-8 in Appendix A below.

In January, 1944 a group of eight Indian industrialists published a national plan for economic development which came to be popularly known as **the "Bombay Plan."** [27] The basic objective of this Plan was to establish a "balanced economy" through industrialization and to "treble" the national income in the course of fifteen years, 1945-1960. To achieve this, the Plan aimed at a two-fold increase in agricultural output and a five-fold increase in industrial output by the end of the planned period. To bring about these targets, a total investment of Rs. 10,000 crores was planned, of which Rs. 7,400 crores was to be internal finance, and Rs. 2,600 crores, to be external finance. As much as Rs. 4,480 crores of this total outlay was allotted for industries, with emphasis on basic and heavy industries. [28] (See Tables IV-A-7 and IV-A-8, mentioned above).

The Bombay Plan was soon followed by **the "People's Plan"**, which was prepared under the auspices of the Indian Federation of Labour. [29] The People's Plan considered the Bombay Plan to be too "capitalistic" in bias and sought to put forward an alternative plan along "socialist" lines. Its basic objective was

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(26) Sen, **Op. cit.**, p. 3.
(27) P. Thakurdas and Others, **A Plan of Economic Development for India,** (Bombay, 1944).
(28) See Thakurdas and Others, **Op. cit.**, pp. 7 and 27.
(29) B.N. Banerjee and Others, **People's Plan for Economic Development of India, Report of the Post-War Reconstruction Committee of the Indian Federation of Labour,** (Delhi, 1944).

thus to "treble" the national income in the course of ten years. To bring about this ambitious target, an equally ambitious total outlay was suggested. As shown in Tables IV-A-7 and IV-A-8, planned investment was expected to be Rs. 15,000 crores, of which only Rs. 1,350 crores was to be initially raised and the rest (about 91 per cent) was to be found through a scheme of so-called "self-financing" based on income from investment undertaken in agricultural and industrial sectors during the period of the Plan.

The third Plan for Indian economic development was conceived by S.N. Agarwal, and called **the "Gandhian Plan".** [30] This plan was based on the ideas of Mahatma Gandhi. Important among them was Gandhi's belief in the inherent and inevitable social and economic eivls of "modern" industrialization. He saw India's future in terms of reviving the dying culture of village life, and advocated the expansion of handicraft and cottage industries. Though the Gandhian Plan was modest in size relative to the other two Plans (see Table IV-A-7), it anticipated an average rate of growth of national income, during its ten-year period, which was double that of the Bombay Plan and about the same as that of the People's Plan. [31] To achieve this rate of growth, a total investment of Rs. 3,500 crores was planned for the ten-year period. This total outlay was to be entirely financed from domestic resources, as shown in Table IV-A-8. The basic strategy of the Plan was economic decentralization and rural self-sufficiency. It therefore put primary emphasis on agriculture and village industries.

Apart from their unrealistic investment outlays, the three Plans failed to find a set of targets which were mutually consistent and based on current and probable resources of the country. All these plans were more or less theoretical exercises, and based on hypotheses which were not quite realistic. The

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(30) S.N. Agarwal, **The Gandhian Plan,** (Bombay, 1944).

(31) See Agarwal, **Op. cit.;** and M. Mukherjee, "Scientific Approach in Planning", in C.R. Rao, (ed.), **Essays on Econometrics and Planning,** (Oxford: Pergamon Press, 1965), p. 153.

"excessive" emphasis on basic and heavy industries in the Bombay Plan, the self-financing proposition in the People's Plan, and the virtual absence of "modern" industries in the Gandhian Plan are examples of such hypotheses. Any government with serious intentions about economic development would need a clearer definition of objectives, a more detailed assessment of financial and other resources, and a more precise allocation of these resources among various sectors and activities. However, these Plans served a useful purpose in the sense that they drew the attention of the country to alternative methods of economic development. Although there were differences of opinion as to the content of the Plan that the country should adopt for its economic development, the need for a kind of national planning was widely accepted and there was an increasing interest among all sections of the population in the process of planning.

In September 1946, Nehru became Prime Minister of an Interim Government that was to inherit the responsibilities of the British Government of India. This Interim Government abolished the Planning and Development Department and appointed instead an Advisory Planning Board in October of that year. The task of this board was to review the "studies" on planning that had taken place in India since 1941; and in the light of this, to make recommendations in regards to objectives, priorities and machinery of planning. By the end of 1946 the board made its report. (32) In essence, this report was a restatement of the Industrial Policy Resolution of 1945. As Sovani put it, the report declared that inasmuch as there had to be a simultaneous advance in all fields, there should be no exclusive preference for any particular sector. (33) However, because of insufficient knowledge and statistical information, the board fixed no production targets. Instead, it recommended that. "...a National Planning Commission should be set up as a standing body for the formulation, watching progress and suggesting necessary modifications of plans." (34)

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(32) See Sovani, **Planning...**, **Op. cit.**; and Sen, **Op. cit.**, p. 3.
(33) See Sovani, **Planning...**, **Op. cit.**, p. 9.
(34) Sen, **Op. cit.**, pp. 3-4.

For three years after this report, the work on planning had to be interrupted because of the colossal problems which the country faced at that time, due to political independence and partition.[35] However, during this period the Government of India issued its Industrial Policy Resolution of 1948 which outlined the general strategy of planning in India, as will be mentioned in Section II below. In January, 1950 the Constitution, which embodied the basic directive principles for Indian planning,[36] came into force. In March of that year, the government issued a resolution setting up a Planning Commission as recommended by the Advisory Planning Board. The work of the Commission was to assess the resources of the country, and in the light of this assessment, to prepare a national plan for economic development, to recommend measures for its implementation, to appraise the progress of the plan from time to time, and to make recommendations necessary for its successful completion.[37]

Immediately after its setting, the first task of the Commission was to prepare **a "plan for India" for the period 1951-57,** and to submit it to the Commonwealth Consultative Committee which had been set up in 1950 for formulating what is popularly known as the Colombo Plan. This "plan for India" was prepared, with a modest total investment of Rs. 1,840 crores during the six years period. It gave very high priority to the development of agriculture and transport.[38] As this plan was prepared at a very short notice, it was found to be both inadequate and defective.[39] The Planning Commission proceeded to prepare a better and more balanced plan, having at its disposal a two-decades experience of planning "studies" as a useful back-

(35) However, partial plans were attempted, such as the five-year plan for increasing food production prepared by the Ministry of Agriculture and the five-year plan of the Central Cotton Committee. Also, during this period no fewer than 160 irrigation projects were being considered, investigated, or implemented. For more details, see Sovani, **Planning..., Op. cit.,** pp. 13-22.
(36) Gov. of India, Planning Commission, **The New India:..., Op. cit.,** p. 66. See also Section II below.
(37) Gov. of India, Planning Commission, **The New India:..., Op. cit.,** p. 66.
(38) See Sen, **Op. cit.,** p. 4.
(39) Sen, **Op. cit.,** p. 4.

ground. From now onwards, planning as a systematic and operational tool of economic policy was to be adopted in India.

After these planning attempts and studies in India and Egypt, planning as a tool of policy (or planning with implementation) in the two countries was actually used by the beginning of the 1950's. In fact, and according to this study, the 1950's and the 1960's are the time-horizon of Indian and Egyptian planning experiences. Each experience has passed through four successive (five-year) phases. The first two were those of the 1950's, and the third and the fourth phases were those of the 1960's. According to the Indian and the Egyptian planners, the first two phases set the foundations for further planned development. The third and the fourth phases were considered as serious steps towards the achievement of a self-sustained economic development, (see Chapters V and VI below).

In India, these four phases are : the First Five Year Plan, the Second Five Year Plan, the Third Five Year Plan, and the Fourth Five Year Plan, respectively. In Egypt, they are : the project-planning phase ; the sectoral-planning phase ; and the comprehensive national-planning phases, namely, the First Five Year Plan and the Second Plan ; respectively. As Chapters V, VI, VII and VIII below will be devoted to a critical examination and over-all appraisal of these planning activities, only the general "official" views on planning and the basic economic policies during this period will be briefly mentioned in this Chapter -- Section II below.

II — PLANNING PHILOSOPHY

The basic features of the economic problem in underdeveloped countries have been reviewed in Chapter I, and the general approach to planning for economic development has been discussed in Chapter II, above. According to these discussions, an underdeveloped but developing country is **inter alia,** a "pragmatic socialist" country. It is passing through a "transitional" period during which it is in a **'sui generis'** state of war against economic poverty. It has a mixed type of economy and adopts some kind of government planning as a tool of economic policy. The dangers and defects of this tool of policy have been outlined, particularly with respect to the relative roles, in the development process, of public and private sectors, of agriculture and industry, and of consumer goods industries and basic and heavy industries. To this country, it seems that the relevant "ideology" is basically that which enables the country to successfully tackle its problem of economic underdevelopment. Invariably, "nationalism" plays an important role in the economic life of this country.

Admittedly, these generalizations are very abstract, vague and ambiguous. However, the relevant question here is : what are the Indian and the Egyptian positions and views, with respect to these issues. The answer to this difficult question is attempted in this section. But one must emphasize that the Indian and the Egyptian views cited are equally general, vague and ambiguous. Nevertheless, they point to the policy intentions of the government and serve as directive principles to planning, in the two countries.

In the Indian case, according to the Planning Commission, India's advance to a society which the commission describes as a "Socialist Pattern of Society" represents an attempt to create a mixed economy which combines private enterprise with government planning. The private sector has to play its part within the framework of a "comprehensive" plan. India seeks to achieve economic and social deveopment within the framework

of a "democratic" society. India's political and economic thinking emanates from its long heritage of philosophic and religious beliefs which finds its most recent expressions in the teachings of Gandhi. (40)

The teachings and convictions of **Gandhi** included both the goals of a new society that he conceived of for India and a set of principles by which the new order should be achieved. He sought a new "democratic" society which to him meant a more equitable distribution of wealth brought about by non-violent means. He believed that no man should have more land than he needs for "dignified sustenance." (41) He focused both national and international attention on the plight of those people for whom life was "an eternal compulsory fast...". (42) He realized the urgency to alleviate this condition, but he strongly emphasized that the new society can not be imposed by force. He thought that if a new social order was enforced upon the will of the people, the remedy was worse than the disease, for the "spirit of democracy" can not be imposed from without. (43) He believed that the concentration of economic and political power was inconsistent with equal economic opportunities and democracy.

Gandhi's belief in the political freedom of the individual was matched by a similar belief in freedom in the market. He thought that the economic welfare of a society was best served by a free market in which individuals were free to express their choices of goods and occupations. (44) As mentioned in Section I, he was strongly against "modern" industrialization and advocated the expansion of the cottage industries. Since he was opposed in principle to a government controlled and regulated economy, he realized that "modern" industrialization within the framework

(40) See Planning Commission, **The New India:..., Op. cit.,** pp. 32-33.
(41) M.K. Gandhi, **Non-Violence in Peace and War,** (Ahmadabad, 1949), p. 97.
(42) Quoted in Planning Commission, **The New India:..., Op. cit.,** p. 33.
(43) Jack, (ed.), **The Wits and Wisdom of Mahatma Gandhi, Op. cit.,** p. 122.
(44) On economics in general, he said: "Economics that hurt the moral well-being of an individual or a nation are immoral and therefore sinful", See Jack, **Op. cit.,** p. 122.

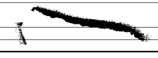
of a free-enterprise economy would lead to a large concentration of wealth and economic power. For the few (basic) industrial enterprises he felt essential, he advocated public ownership or management "in the interest of all."[45] Gandhi's economic ideas were incorporated in the Gandhian Plan, described above. His political ideas were embodied in the Indian Constitution of 1950. The death of Gandhi in 1948 left Nehru as the most dominant figure on the political scene.

Nehru shared Gandhi's political views, but he did not share Gandhi's economic ideas. To Nehru, an improvement in Indian living standards required a frontal attack on Indian poverty through "a scientific and systematic effort of economic planning." According to him, this required the development and mobilization of India's resources towards a planned goal. He believed that it was unlikely that the free market in a "static economy" would effectively allocate scarce resources through the market mechanism in a manner conducive to economic development. As he shared Gandhi's views on democracy, he therefore sought a solution of the economic problem in what he called "democratic socialism." For Nehru, "democratic socialism" meant State ownership, management or control of certain basic industries that are considered strategic and whose growth is deemed necessary pre-condition for sustained economic development, and of such industries in which technological consideration tends towards a concentration of economic power and wealth. Government ownership, management or control of these industries would come as the result of legislation by the Indian Parliament.[46]

All through the 1930's (and early 1940's) Nehru led a group of younger men within the Congress Party in an effort to make "socialism" the declared objective of the party. He could not however overcome the "conservative" influence of Gandhi and could not obtain the support of such "liberals" as Vallabbahai

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(45) See Planning Commission, **The New India:...**, **Op. cit.**, p. 51.
(46) For details on this point, see J. Nehru, **Independence and After,** (New York: John Day Co., 1950); and Barbara Ward, **India and the West,** (New York: Norton Co., 1961), p. 121.



Patel and his group. The members of this group believed that economic development could be accomplished within the framework of a free-enterprise economy. They were not in favour of any comprehensive plan of economic development that involved extensive government direction and control of economic activity. In short, they were not interested in either reviving the dying culture of "village life" or in "socializing" the economy. (47)

While there was no basic agreement within the Congress Party concerning future economic policy, the British government of India issued its **Industrial Policy Resolution of 1945,** mentioned above. This resolution stated that : "It is axiomatic in Government Policy that the additional wealth created by industrial development should be distributed in a manner that may be regarded as socially equitable. Powers must be taken and consciously used to secure this purpose." (48) In accordance with this statement, the resolution outlined the proposed role of government and of the private sector. It stated that certain basic industries of national importance might be nationalized where their development was regarded as essential and when private capital was not forthcoming in "sufficient amounts" to develop them at the desired rate. Private enterprise was to be free to develop all other industrial undertakings, but was to be controlled by government. Such controls included government licensing of industrial enterprise to avoid concentration of economic power. In addition to this, the resolution stated that other controls were necessary to achieve : "balanced" investments in industry, agriculture and social services; a "fair" wage and "decent" conditions of work and living for industrial workers; a "reasonable" security of land tenure; the prevention of "excessive" profits to private capital and the "unhealthy" concentration of economic power; and a "reasonable" quality of industrial products. (49)

In 1946, the Advisory Planning Board appointed by Nehru

(47) B. Ward, **Op. cit.,** p. 121.
(48) Quoted in N. Sovani, **Op. cit.,** p. 3.
(49) See Sovani, **Op. cit.,** pp. 3-6.

made its **report on planning for India,** as mentioned in Section I. In essence the report of the board was merely a re-statement of the Industrial Policy Resolution of the British Government of India, just outlined. The report declared that inasmuch as there had to be a simultaneous advance in all fields, there should be no exclusive preference for any particular sector. However, as regarded industrial priorities, it gave first preference to what it called "prime necessities" such as food, clothing and housing; irrigation; and hydro-electric power. Iron and steel were "to be given equal preference as prime necessities", because they serve agriculture as well as industry. [50] Manufacture of machinery was next; and industrial production of consumer goods (other than essential food and clothing) received the lowest priority. [51]

In April 1948, the new formed Indian Government issued its **Industrial Policy Resolution of 1948.** [52] This resolution stated that a mere redistribution of wealth was not the solution to India's economic problems. It stated that, "In the present state of the nation's economy..., the emphasis should be on the expansion of production, both agricultural and industrial; and in particular on the production of capital equipment, of goods satisfying the basic needs of the people, and of commodities the export of which will increase earnings of foreign exchange." [53] Towards this end, the resolution stated that "... the State must play a progressively active role..." [54] The resolution accordingly divided industry into three categories. The first category included armament, railway transport, and atomic energy. This category was to be the exclusive responsibility of the State. The second category included iron and steel; coal; aircraft manufacture; shipbuilding; manufacture of telephone, telegraph and wireless apparatus (excluding radio receiving sets); and mineral oils. The State was to be exclusively responsible for new undertakings in these areas, though existing enterprises would be

(50) Sovani, **Op. cit.,** p. 9.
(51) For more details, see Sovani, **Op. cit.,** p. 9.
(52) The full text of this Resolution is reproduced in R. Owen, **India:..., Sept., 1952, Op. cit.,** pp. 393-97.
(53) Owen, **Op. cit.,** p. 393.
(54) See Owen, **Op. cit.,** p. 393.

allowed to continue for ten years and then the matter will be reviewed. The rest of the industrial field was left to private enterprise, though even within this category the government proposed to undertake the planning, regulation and control of certain basic industries including heavy machinery, machine tools, heavy chemicals, non-ferrous metals, minerals, cement, textiles, salt and sugar. Cottage and small-scale industries were to be developed on lines "complementary to large-scale industrial production." (55)

The Indian legislature received the resolution with mixed emotions. One group was unhappy about the postponement of the questions of nationalization. Another group led by K.S. Karimuddin, a member of one of the Socialist parties, wanted the legislature to resolve that : "This assembly is of the opinion that the economic pattern of this counry shall be a socialist economy based on the principle of nationalization of key industries and co-operative and collective farming and socialization of the material resources of the country and that the Government of India shall adopt the said principles immediately." (56) In a speech delivered before the legislature on February 17, 1948, during the debate on the government Industrial Policy Resolution which was finally adopted, Nehru declared that Karimuddin's resolution was vague and meaningless. He declared that the government could not speak in terms of a vague formula like Karimuddin's resolution and that the solution of India's problem was "not merely a question of the adoption of a certain economic outlook, but also of timing, priorities, of how to do it, in what manner and when to act." (57) He argued, in one of his clearest statement of policy, that India "... **can not** root its policies in **rigid socialist dogmas** or **other doctrinaire theories,** or apply **foreign ideologies** which were adopted by other nations in **very different** conditions." (58)

(55) Owen, **Op. cit.,** p. 395.
(56) See Nehru, **Op. cit.,** p. 163.
(57) Nehru, **Op. cit.,** p. 164.
(58) Quoted in Planning Commission, **The New India..., Op. cit.,** p. 52, (my italics).

As Gandhi's political thoughts have been embodied in the Indian Constitution of 1950, Nehru's economic thoughts have been incorporated in Indian economic planning. **The First Plan** states that "Planning involves the acceptance of a clearly defined system of objectives in terms of which to frame over-all policies. It also involves the formulation of a strategy for promoting the realisation of the ends defined. It is thus different from the traditional hit-and-miss methods by which 'reforms' and 'reconstruction' are often undertaken. A planned economy has inevitably in view a somewhat wider time-horizon, to which the day-to-day decisions have to be related." "And yet," the document continues, **"practical policy cannot operate in terms of mere set doctrines; it must satisfy certain pragmatic tests."** [59]

According to the Plan, a mixed economy with the State being responsible for over-all economic development was the new economic framework. Within this framework the State was to take the lead in promoting capital formation of required scale, in facilitating and encouraging the introduction of new techniques, and in "... the over-all re-alignment of the productive forces and class relationships within society." [60] This, the Plan emphasizes, necessitates "a progressive widening of the public sector and a re-orientation of the private sector to the needs of a planned economy." [61] Rejecting nationalization as a means of strengthening the public sector, the Plan fully accepts the Industrial Policy Resolution of 1948, [62] where the respective roles of the public and the private sectors in the industrial field have been enunciated, as described above.

The Plan further indicates that the private sector will have to operate within a system of economic controls ranging from monetary, fiscal and commercial measures to direct controls such as regulation of wages, controls on production of some industrial lines and controls on physical allocations of certain key com-

(59) Planning Commission, **The First Five Year Plan, Op. cit.,** pp. 7-8, (my italics).
(60) Planning Commission, **The First Five Year Plan, Op. cit.,** pp. 31-32.
(61) Planning Commission, **The First Five Year Plan, Op. cit.,** p. 32.
(62) Planning Commission, **The First Five Year Plan, Op. cit.,** p. 33.

modities to consumers.[63] In agriculture, the Plan stresses that not only must the State assume the responsibility for providing the basic services such as irrigation, power, roads and communications, it also must undertake direct promotional work such as providing finance, marketing facilities, technical advice and other assistance to the cultivators through appropriate agencies.[64] More important, according to the Plan, is the reorganization of agrarian structure through abolition of intermediaries, protection of tenants, reduction of the disparities in land ownership, and other measures of land reform. Without specifying the elements of its land policy, the Plan goes on to say that "while broad principles and directions of policy can be indicated, it is necessary to remember that the form and manner of their application and the adaptations to which they are subject will differ widely in different parts of the country."[65]

On allocation of resources and price policy in general, the Plan takes the view that for the private sector, the prevailing price relationships are "the prime factor" in determining resource allocations. In the public sector, the direction of investment need not always and necessarily be guided by "the profit-and-loss calculus." Nevertheless, "the relation between costs and returns even in the public sector has to be judged, at least as a first approximation, in terms of market prices."[66]

In December, 1954, the Indian Parliament declared that a "Socialistic Pattern of Society" was the object of its economic policy. The announcement was unaccompanied by any explanation of the meaning of the phrase. One month later in January, 1955, at its Annual Session, the Congress Party, through Nehru, reaffirmed that a "Socialistic Pattern of Society" suited to Indian conditions would be the aim of its economic policy. Yet there was still no interpretation of the phrase. In 1956, at its Annual

(63) Planning Commission, **The First Five Year Plan, Op. cit.**, pp. 42-43.
(64) Planning Commission, **The First Five Year Plan, Op. cit.**, p. 34.
(65) Planning Commission, **The First Five Year Plan, Op. cit.**, p. 184. For more details, see the same work, pp. 185-98, and Chapter V below.
(66) See Planning Commission, **The First Five Year Plan, Op. cit.**, p. 36.

Session, the Party dropped "Socialistic pattern" and replaced it with "Socialist pattern" as the aim of its economic policy. The top party leaders made it clear that this change was deliberate and not inadvertent. The Official Resolution of the Party cited the nationalization of the Imperial Bank of India, and of life insurance companies as significant steps towards the establishment of a "Socialist structure." However, the leaders of the Party did not indicate that there was to be any extensive government ownership of the "means of production" even though it was reasonable to assume that the economy was to operate within the framework of extensive government controls. Again, no direct interpretation of the new phrase has been attempted in the Official Resolution of the Party, or by the Party leaders.[67]

The interpretation of a "Socialist pattern of society" was left for **the Government Industrial Policy Resolution of 1956** [68] and the Second Five Year Plan to spell out. This resolution was a re-statement of the 1948 resolution, described above. "In order to realise this objective (a 'Socialist pattern of Society')," the 1956 resolution asserts, "it is essential to accelerate the rate of economic growth and to speed up industrialisation and, in particular, to develop heavy industries and machine making industries, to expand the public sector, and to build up a large and growing Co-operative sector." [69] It goes on to say that "The adoption of the socialist pattern of society as the national objective, as well as the need for planned and rapid development, require that all industries of basic and strategic importance, or in the nature of public utility services, should be in the public sector. Other industries which are essential and require investment on a scale which only the State, in present circumstances, could provide, have also to be in the public sector. The State has therefore to assume direct responsibility for the future

(67) For more details on this point see, e.g., Taya Zinkin, **India Changes,** (Oxford: Oxford University Press, 1958), pp. 200-201.
(68) The full text of this resolution is reproduced in Gov. of India, Planning Commission, **Second Five Year Plan,** (New Delhi, 1956), pp. 43-50.
(69) See Planning Commission, **Second Five Year Plan, Op. cit.,** p. 44. For a critical examination of these propositions, see Chapter V below.

development of industries over a wider area." (70) The resolution classifies industries into three categories, having regard to the part which the State would play in each of them.

The first category consists of industries the future development of which will be the exclusive responsibility of the State. (71) The second category comprises industries which will be progressively State-owned and in which the State will therefore generally take the initiative in establishing new undertakings, but in which private enterprise will also be expected to supplement the effort of the State. (72) The third category includes all the remaining industries, the future development of which will in general be left to the initiative and enterprise of the private sector "though it will be open to the State to start any industry even in this category." (73) The resolution also states that the government will help cottage, village and small-scale indusries to be self-supporting and ensure that their development is integrated with that of large scale industry.'(74)

The Second Five Year Plan further explains the phrase "socialist pattern of Society." The Plan declares, "essentially, this means that the basic criterion for determining the lines of advance must not be private profit but social gain, and that the pattern of development and the structure of socio-economic

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(70) Planning Commission, **Second Five Year Plan, Op. cit.,** p. 45.

(71) This category includes armament; atomic energy; iron and steel; heavy castings and forgings of iron and steel; heavy plant and machinery; coal and lignite; mineral oils; mining of iron ore, manganese ore, chrome ore, gypsum, sulphur, gold and diamond; mining and processing of copper, lead, zinc, tin, molybdenum and wolfram; minerals specified in the Schedule to the Atomic Energy; aircraft; air and railway transport; shipbuilding; telephones and telephone cables, telegraph and wireless apparatus, excluding radio receiving sets; and generation and distribution of electricity. See Planning Commission, **Second Five Year Plan, Op. cit.,** p. 50.

(72) This category includes all other minerals except "minor minerals" as defined in Section 3 of the Minerals Concession Rules, 1949; aluminium and other non-ferrous metals not included in the first category; machine tools; ferro-alloys and tool steels; basic and intermediate products required by chemical industries; essential drugs; fertilizers; synthetic rubber; carbonisation of coal; chemical pulp; and road and sea transport. See Planning Commission, **Second Five Year Plan, Op. cit.,** p. 50.

(73) See Planning Commission, **Second Five Year Plan, Op. cit.,** p. 46.

(74) Planning Commission, **Second Five Year Plan, Op. cit.,** pp. 47-48.

relations should be so planned that they result not only in appreciable increases in national income and employment but also in greater equality in incomes and wealth." "Accordingly," the Plan continues, "major decisions regarding production, distribution, consumption and investment — and in fact all significant socio-economic relationships — must be made by agencies informed by social purpose."[75] It emphasizes that "for creating the appropriate conditions, the State has to take on heavy responsibilities as the principal agency speaking for and acting on behalf of the community as a whole."[76]

Having fully accepted the Industrial Policy Resolution of 1956, the Plan states that the public sector "... has not only to initiate developments which the private sector is either unwilling or unable to undertake; it has to play the dominant role in shaping the entire pattern of investments in the economy whether it makes the investments directly or whether these are made by the private sector." Then it goes on to say that, "private enterprise, free pricing, private management are all devices to further what are truly social ends; they can only be justified in terms of social results."[77] For the attainment of these ends, the Plan maintains that in the fields specified by the Industrial Resolution for the private sector, "... conditions have to be created in which there is full scope for private initiative and enterprise either on an individual or on a co-operative basis."[78] With respect to agriculture, the same general measures suggested by the First Plan, mentioned above, is emphasized by the Second Plan.[79]

The Second Plan concludes : "The Socialist pattern of society is not to be regarded as some fixed or rigid pattern. It is not rooted in any doctrine or dogma. Each country has to develop according to its own genius and traditions. Economic and social

(75) Planning Commission, **Second Five Year Plan, Op. cit.,** p. 22.
(76) Planning Commission, **Second Five Year Plan, Op. cit.,** p. 22.
(77) Planning Commission, **Second Five Year Plan, Op. cit.,** pp. 22-23.
(78) Planning Commission, **Second Five Year Plan, Op. cit.,** p. 23.
(79) Planning Commission, **Second Five Year Plan, Op. cit.,** pp. 177-220. For more details, see Chapter V below.

policy has to be shaped from time to time in the light of historical circumstances. **It is neither necessary nor desirable that the economy should become a monolithic type or organisation offering little play for experimentation either as to forms or as to modes of functioning.** Nor should expansion of the public sector mean centralisation of decision-making and of exercise of authority. In fact, the aim should be to secure an appropriate devolution of functions and to ensure to public enterprises the fullest freedom to operate within a framework of broad directives or rules of the game. The organisation and management of public enterprises is a field in which considerable experimentation will be necessary, and this holds, in fact, for the entire socialist pattern." [80]

Accepting fully the interpretation of the "Socialist pattern of society" given in the Second Plan as the basic approach to planned development in India, **the Third Five Year Plan** goes on to emphasize the important roles of both the public and the private sectors in this development process. It states that "with the rapid expansion of the economy, wider opportunities of growth arise for both the public and the private sectors and in many ways their activities are complementary." It then asserts that "... the Five Year Plans, enlarge the scope for individual initiative as well as for co-operative and corporate effort. It is **mainly within a limited area** in the field of large-scale industrial enterprise that the question arises whether, in the special circumstances of the country, in accordance with the Industrial Policy Resolution of April, 1956, and in view of the social goals aimed at, particular tasks should be assigned to the public sector or to the private sector." [81] This emphasis on the role of the private sector seems to be a significant shift towards more "liberal" economic measures. The reasons behind this may be basically found in the relative performances of the public and the private sectors, particularly in the industrial field, during the First and

(80) Planning Commission, **Second Five Year Plan, Op. cit.,** p. 23, (my italics).

(81) See Gov. of India, Planning Commission. **Third Five Year Plan.** (New Delhi, 1961), p. 7, (my italies).

the Second Plans; and in the serious economic difficulties experienced during the Second Plan, (see Chapters V, VI and VII below).

However, the emphasis on the public sector remain more or less the same as that postulated in the Second Plan. In **the Fourth Five Year Plan,** the basic principles underlying the national objective of a "Socialist pattern of society" cited above are maintained, [82] with an increasing emphasis on the role of the public sector in the development process, as will quantitatively be shown in Chapter VI. However, the version of the Fourth Plan appears to be more defined and more realistic. For example, the Draft Outline states that "under Indian conditions, the quest for equality... requires as its basis both a high rate of economic growth and a low rate of population increase. Even far-reaching changes in social and economic fields will not lead to a better life unless population growth is controlled." [83]

In sum, from the above account, one can see that from the British Government of India Industrial Policy Resolution of 1945 to the Fourth Plan the basic national objective of planning in India is to establish a "developed" socialist pattern of society through a democratic setting.

In the Egyptian case, one can see from Section I that the economic system in Egypt was basically a "free enterprise" system up to the beginning of the 1950's. Apart from irrigation, and other infrastructural activities such as transport and communications, public utilities, etc.; and some monetary and commercial policies, [84] the government was by and large "neutral" as far as economic activities of the country were concerned.

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(82) See Gov. of India, Planning Commission, **Memornadum on the Fourth Five Year Plan,** (New Delhi, Oct., 1964), pp. 5-7 and 92-94; and Gov. of India, Planning Commission, **Fourth Five Year Plan: A Draft Outline,** (New Delhi, August, 1966), pp. 21-23.

(83) See Planning Commission, **Fourth Five Year Plan: A Draft Outline, Op. cit.,** p. 22.

(84) There were also some price controls, rationing of some essential commodities, and rent controls. These measures were initiated during World War II because of growing shortages. See Issawi, **Egypt in Revolution:..., Op. cit.,** p. 51.

This picture drastically changed during the 1950's and onwards. Since the Revolution of 23 July 1952, Egypt has passed through more or less three developments towards an "Arab" Socialist pattern of society. The first development occurred from 1952 to 1956, the second from 1957 to 1960, and the third, from 1961 and onwards. These developments are going to be briefly dealt with as follows.

In describing the actions of the new regime during **the first period**, Professor Charles Issawi says : "It seems most unlikely that any of the officers who carried out the coup d'état of 1952 had a clearly thought-out economic philosophy, much less that there was a doctrine shared by the whole group. A study of the government's actions in the economic and social field between 1952 and 1956... shows that it proceeded with great caution, and along highly orthodox lines, to restore economic stability, develop production, and bring about some measure of social welfare." (85)

In 1953, in his **The Philosophy of The Revolution** Nasser asked himself about the aim of the Revolution and how to fulfil it. He wrote : "New what is it we are all out to do?, and how to do it?" He answered, "I really knew almost at all times the answer to the first question. As for the answer to the second question, I feel I must admit no other idea had undergone so many changes in my mind. I almost believe it is the greatest controversy of the present generation." (86)

With no pre-determined "economic ideology," Egypt faced its economic problem. During this period, the new regime cautiously proceeded to restore economic order, develop production and bring about some social measures, (see Chapter V below). It tried to restore business confidence, encourage private enterprise and create favourable atmosphere for the

(85) Issawi, **Egypt in Revolution:..., Op. cit.,** pp. 51-52.
(86) Gamal Abd-El-Nasser, (Cairo : United Arab Republic, Information Department, 1953), p. 27.

investment of national and foreign capital.[87] On this Nasser said, **"Our role is that of a guardian only, no more and no less, a guardian for a definite limited period of time.** Then he proceeded to spell out the task of this guardian by saying, "How similar is our nation today to a caravan which should have taken a certain route! The route was long; thieves and highwaymen attacked the caravan; it was led astray by a mirage; and finally it dispersed, each group wandering off to a different place and every individual taking a different direction. How similar is our mission in these circumstances to the part of someone going out of his way to gather these wandering, lost wayfarers in order to put them again on the right track and leave them to proceed with their march!" He concluded, **"This is our part, and I cannot imagine any other."**[88]

In pursuing this part, an Agrarian Reform Law was promulgated on 9 September 1952 and immediately put into effect. A special independent body was set up and endowed with extensive power to take all necessary actions to enforce this law. It involved an expropriation and redistribution from big to small owners of about 10 per cent of the cultivated area, by limiting maximum holdings to 200 feddans. The Law declared that "no person may possess more than 200 feddans of agricultural land." From this general rule exemptions were granted to companies reclaiming land for sale later, private persons reclaiming desert land (exempted for 25 years), existing industrial companies and agricultural and scientific societies, and the religious Wakf land (i.e., land which is voluntarily put under permanent public administration by its owner to secure all future income from it for religious purposes). Under this Law, compensation equivalent to seventy times of the basic land tax (which was on average about L.E. 3 per feddan) was to be paid for the expropriated land in the form of State bonds at an interest of 3 per cent and redeemable in thirty years. On the other hand,

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(87) For more details, see, e.g., Issawi, **Egypt in Revolution:..., Op. cit.,** pp. 52-54, and references cited there.
(88) Abd-El-Nasser, **The Philosophy of The Revolution, Op. cit.,** p. 40, (my italics).

beneficiaries had to pay to the government a price equivalent to this compensation plus 15 per cent for administrative expenses, by equal annual instalments within thirty years and at an interest of 3 per cent. The Law also fixed "ceilings" for rents for all agricultural land as well as prescribed "minimum" daily wages for agricultural workers. [89]

According to this Law, the aims of this structural reform in agriculture were to break the political and economic power of the big landowners, to bring about a greater measure of social justice and economic equality, to increase agricultural production,and to divert the flow of investment from (purchasing) of land to other activities, particularly to industry. [90]

In industry, it seems that private enterprise was afforded every possible encouragement to expand during this period. Apart from concentrating on infra-structural activities leaving the whole field of manufacturing to private initiative, the government took various measures to encourage private enterprise. These measures ranged from higher protective tariffs to various financial incentives and facilities, as will be mentioned in some detail in Chapter V.

In short, the government, in fact, adhered to its "guardian" task by trying to create an atmosphere in which private enterprise could flourish. As Mr. Patrick O'Brien in a recent study of the Egyptian economic system maintains, "1952 to 1956 might appropriately be described as the 'free enterprise phase' of the Egyptian Revolution." [91] Planning during this period was con-

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(89) For details, see United Arab Republic, Agrarian Reform Organization, **Agrarian Reform : Decree-Law No. 178 of 1952,** (Cairo, 1957) ; and United Arab Republic, Ministry of Agrarian Reform and Land Reclamation, **Agrarian Reform and Land Reclamation in Ten Years,** (Cairo, 1962), pp. 13-20. See also Chapter V, below.

(90) For detailed evaluation of land reform in Egypt, see, e.g., Ministry of Agrarian Reform and Land Reclamation, **Op. cit.** ; and D. Warriner, **Land Reform and Development in the Middle East,** (London : Oxford University Press, 1962).

(91) See P.K. O'Brien, "The Egyptian Revolution and Private Enterprise", **A First and Incomplete Unpublished Monograph,** (London University, 1963), p. 13. This work is recently published in a final and considerably enlarged form as **The Revolution in Egypt's economic system, 1952-1965,** (London : Oxford University Press, 1966). In this study, references are to the unpublished version.

ceived as the government actions to create a healthy atmosphere for private enterprise to work. It was planning by incentives rather than by directives. [92]

The new Constitution of the Republic of Egypt, promulgated in 1956, expressed in general terms the directions of future developments in the economic field. Article three recognized "private ownership as one of the cornerstones of the capitalistic system and also a great incentive for individual growth." Private economic activity was guaranteed to be "free from State interference provided that it does not prejudice public interests..." Nevertheless, the Constitution stated that "development would be planned; that capital should work for the State and the people; that the reconciling of public and private economic activity would be guaranteed in a manner which ensures social aims and public welfare." [93]

By the end of 1956, the Suez crisis largely shaped the developments of **the period 1957-1960.** These developments began with the nationalization of the Suez Canal. This nationalization was decided upon as a way to finance the Asswan High Dam after negotiations with the IBRD broke down. The Suez crisis that followed carried with it further nationalizations and sequestrations of British, French and Jewish property, what came to be known as the "Egyptianization" of 1957. The Economic Organization was founded in 1957 by the government to take over this property and participate in the formation of new companies and organizations. [94]

At the end of 1957, in describing these developments and indicating the general basis of future economic policies, Nasser told the Third Co-operative Congress that Egypt was now

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(92) As will be quantitatively shown in Chapter V, below.

(93) The Egyptian Constitution, 1956, published in **Middle East Mirror,** (16 Jan., 1956), quoted in O'Brien, **Op. cit.,** p. 14.

(94) For details, see United Arab Republic, Economic Organization, **Yearbook of the Economic Organization, 1958-1959,** (Cairo, 1959), pp. 259-71, (in Arabic). See also Chapter V below.

moving towards a "Socialist Democratic and Co-operative Society."[95] On another occasion, he said on this point: "Many people say we have no theory, we would like you to give us a theory. What is the theory we are following? We answer, a socialist, democratic, co-operative society. But they persist in asking for a clearly defined theory. I ask them, what is the object of a theory? I say that I was not asked on July 23 to stage the revolution with a printed book including my theory."[96]

In September 1958, an amendment to the Land Reform Law of 1952 was decreed, according to which the bonds issued in compensation for the land expropriated under the 1952 Law had been changed from thirty to forty years and the interest on them had been reduced from 3 to 1½ per cent. The maximum that could be owned by a man, his wife and "minor" children was fixed at 300 feddans. In September 1959, an amendment to 1958 Law was issued, according to which any such family owing 300 feddans was prohibited from leasing additional land.[97]

At the beginning of 1960, the big Misr concern, which played a leading part in the early industrialization was nationalized. This concern was a giant complex of industrial and commercial assets controlled by Bank Misr. It produced chemicals, pharmaceutical products, edible oils, textiles, cement, and films; as well as services such as shipping, hotel services, insurance and publishing. According to the government sources, the reasons for nationalization of this concern were partly because its investment plans did not conform with those of the government, and partly because the government wanted to put all financial institutions under its direct control.[98]

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(95) United Arab Republic, Information Department, **President Nasser's Speeches and Press Interviews,** 1958, (Cairo, 1959), p. 403. See also O'Brien, **Op. cit.,** p. 34.
(96) United Arab Republic, Information Department, **President Nasser's Speeches, 1961,** (Cairo, 1962), p. 389.
(97) For details, see Ministry of Agrarian Reform and Land Reclamation, **Op. cit.**
(98) United Arab Republic, Ministry of Finance and Economy, **Budget Report, 1960-61,** (Cairo, 1961), pp. 70-75 and 89; and National Bank of Egypt, **Economic Bulletin,** Vol. XIII, (Cairo, 1960), p. 33.

By the end of this period (1957-1960), public sector had considerably and rapidly grown. It included three types of business: first, establishments owned and controlled by the State since they came into existence such as railways and communications; second, establishments owned by the State as a result of nationalization such as Suez Canal, Bank Misr and the National Bank of Egypt; and third, establishments entirely or partly owned by the State and placed under the control of the Economic Organization — these include the "Egyptianized" foreign establishments, as mentioned above.[99] So, it appears that State control had considerably extended over organized business, particularly financial services and manufacturing industries. Furthermore, the newly formed Ministry of Industry (1956) was authorized to exercise extensive indirect controls over the remaining private enterprises in the organized business. According to Law No. 21 of 1958, the establishment, expansion or limitation of capacity, change of purpose or location of any plant were subject to license from the Ministry. The Ministry was also empowered to define specifications for finished products and raw materials used in their manufacture, and to fix prices and profit margins for industrial firms.[100]

In attempting to explain these measures and to reassure private enterprises, Dr. Abd-El-Moneim El-Kaissouny, the then Minister of Finance and Economy, asserted "This country is determined that its policy will spring from its own pure soil, fashioned by its own circumstances and serving its own interests." He then went on to say, "We intend to ensure that capital shall remain free as long as it contributes to the general welfare. The illegitimate domination of capital will be abolished. To consolidate the socialist democratic and co-operative society, public and private capital combine in the implementation of the investment projects planned for economic development. Public

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(99) These types do not include the Military factories.

(100) For a detailed description of this law see Republic of Egypt, Ministry of Industry, **Industry after the Revolution and the Five Year Plan,** (Cairo, 1957), pp. 225-34. This Law was issued in 1958, see United Arab Republic, Information Department, **The Annual Book — The United Arab Republic, 1959,** (Cairo, 1959), p. 137.

capital goes into certain basic industries and participates with private capital in other industries." [101]

A month later (July 1961), there began what is now officially referred to as **Egypt's "Social Revolution."** In July 1961, the government issued and immediately put into effect what is officially called "The Socialist Laws of 1961." [102] In May 1962, the basic principles of the Egyptian social system were stated and defined in the National Charter. [103]

In describing these laws, the Central Bank of Egypt stated that "during the past few months... the U.A.R. witnessed the promulgation of far-reaching economic and social legislation aiming towards the realisation of the 'socialist, democratic and co-operative' pattern of Society." "The legislative measures...", the bank continued, "have embraced the reorganisation of the banking structure in the U.A.R., the nationalisation of banks and insurance companies, the overhaul of the cotton marketing mechanism, the extension of the public sector control through nationalisation or State partnership, the amendment of the Agrarian Reform Law, the increase in the tax rates on the higher brackets of income, the adoption of labour sharing in the profits and management of companies, and wider application of State trading." [104]

According to these laws, in addition to seventeen banks and seventeen insurance companies, 42 companies and establishments were to be taken over completely by the State (Law No. 117 of 1961). On 79 companies and establishments, State partnership to the extent of not less than 50 per cent of the capital was

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(101) United Arab Republic, Ministry of Finance and Economy, **Budget Report, 1961-1962,** (Cairo, 1961), pp. 41-45; also cited in O'Brien, **Op. cit.,** pp. 51-52.

(102) For detailed description of these Laws see, United Arab Republic, Documentation and Research Centre, **Socialist Laws of 1961: Decrees and Laws Issued To Implement the U.A.R.'s Socialist Policy in the Economic and Social Spheres (July-December, 1961),** (Cairo, no year of publication mentioned).

(103) Gamal Abd-El-Nasser, The Charter, (United Arab Republic, Information Department, Cairo, 1962).

(104) See Central Bank of Egypt, **Economic Review,** Vol. 1, (Cairo, 1961), p. 283.

imposed (Law No. 118 of 1961). In a further 148 companies and establishments, the State took over less than 50 per cent of the shares, but exercised direct control. In this third group of companies, "no physical or moral person is allowed to possess shares with a market value exceeding L.E. 10,000...". The excess was to be taken over by the State (Law No. 119 of 1961). In all these cases, compensation was to be paid by each company in question to the previous shareholders in the form of negotiable State bonds at an interest of 4 per cent on the nominal value of the shares, maturing after 15 years and redeemable after 10 years. An individual could only receive compensation up to a "maximum" amount of L.E. 15,000. (105) So, all financial institutions and large-scale industries were either fully under State ownership or else partially publicly-owned but controlled by the State.

In virtue of further nationalization laws enacted in 1962, 1963 and 1964, companies and establishments of the second and third groups (partially publicly owned) were completely taken over by the State. (106) In 1963, a further 220 companies were completely nationalized (Law No. 72 of 1963). (107) In all these cases, compensation was effected on the same basis as under 1961 Laws, mentioned above. So, with the exception of "wholesale trade" companies,(*) all corporate business was brought into complete State ownership.

With respect to agriculture, according to the "Socialist Laws of 1961," certain provisions of the Agrarian Reform Laws of 1952 and 1958, mentioned above, were amended. The maximum size of individual ownership was reduced from 200 feddans of

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(105) For details, see Documentation and Research Centre, **Op. cit.**, pp. 12-26; and Central Bank of Egypt, **Economic Review**, Vol. I, pp. 283-85.
(106) For details, see Central Bank of Egypt, **Economic Review**, the legislation section, Vol. II, (Cairo, 1962), Vol. III, (Cairo, 1963), and Vol. IV, (Cairo, 1964); and National Bank of Egypt, **Economic Bulletin**, the legislation section, Vol. XV, (Cairo, 1962), Vol. XVI, (Cairo, 1963), and Vol. XVII, (Cairo, 1964).
(107) See National Bank of Egypt, **Economic Bulletin**, Vol. XVI, **Op. cit.**, pp. 212-13.
(*) These companies have been nationalized in 1967. See national Bank of Egypt, Economic Bulletin, Vol. XX, (Cairo, 1967).

agricultural land (Law No. 178 of 1952) to 100 feddans, including non-cultivated and desert lands (Laws No. 127 and No. 132 of 1961). Excess holdings not disposed of to small cultivators within one year was to be taken over by the State (for re-distribution among the landless and small holders in units between 2-5 feddans) against compensation which was to be effected by negotiable State bonds at an interest of 4 per cent and redeemable after 10 years. Some small landowners were prevented from ever reaching the new maximum. Law No. 127 of 1961 states : "No single family (including the landowner, his wife and minor children) shall be allowed to lease or in any other way hold more than 50 feddans of agricultural lands over and above its own property." [108]

In virtue of Law No. 128 of 1961, instalments still due on the price of lands distributed to beneficiaries in accordance with the Agrarian Reform Laws No. 178 of 1952 and No. 161 of 1958 as well as the interest thereon have been reduced by 50 per cent. [109]

In 1962, according to the National Charter, further limitation on land ownership was enacted. Instead of effecting the maximum size of ownership of 100 feddans for an individual (Laws No. 127 and No. 132 of 1961), the Charter set this maximum for the family as a whole, which includes father, mother and dependents. [110] The Charter states : "In the field of ownership of rural land, the Agrarian Reform Laws have limited individual ownership to one hundred feddans. Yet, the spirit of the law implies that this limitation should cover the whole family namely : father, mother and children out of age." [111]

On 21st March, 1964, Law No. 104 of 1964 was enacted in virtue of which agricultural land taken over by the State in

(108) See Documentation and Research Centre, **Op. cit.,** pp. 34-35 ; and Central Bank of Egypt, **Economic Review,** Vol. I, (Cairo, 1961), p. 286.
(109) Documentation and Research Centre, **Op. cit.,** p. 36 ; and Central Bank of Egypt, **Economic Review,** Vol. I, (Cairo, 1961), p. 286.
(110) See Central Agency for Public Mobilization and Statistics, **The Annual Book of General Statistics of the United Arab Republic : 1952-1964, Op. cit.,** p. 38.
(111) See Abd-Eel-Nasser, **The Charter, Op. cit.,** p. 48.

accordance with the Agrarian Reform Laws, mentioned above, became State property and "no compensation was paid for it." (112)

On 24th March, Law No. 138 of 1964 was issued reducing to one quarter the price of land distributed to the landless and small holders. These beneficiaries were also exempted from paying interest on the instalments in respect of the price of such land. This law applied to all land distributed after the enforcement of Law No. 178 of 1952. Instalments and interest previously collected from the beneficiaries were to be taken into account in calculating the balances due. (113)

There were other redistribution measures under 1961 Laws. For example, corporate enterprises were compelled to distribute their net profits as follows: 20 per cent for reserves, 5 per cent for the purchase of State bonds, 56.25 per cent for the shareholders, and 18.75 per cent for all employees (staff and workers), (Laws No. 111 and No. 112 of 1961). The share of the employees was to be distributed in ratio to their salaries and wages, with an upper limit of L.E. 50. Any remainder after the initial distribution was to be paid to employees whose original shares were less than L.E. 50. For all industrial labour, working hours were fixed at 42 hours per week, exclusive of breaks (Law No. 133 of 1961). All employees of any company in the corporate business were to be represented on its board by two members out of seven (Law No. 114 of 1961). Furthermore, anyone was forbidden from holding more than one post (Law No. 125 of 1961). And total earnings of anyone among all employees in public organizations and companies were limited to a maximum of L.E. 5,000 per annum (Law No. 113 of 1961). (114)

On 19th July, 1961, the general tax on income was amended by Law No. 115 of 1961 which made the rates on incomes above L.E. 3,000 per annum more progressive. Accordingly, a marginal

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(112) See National Bank of Egypt, **Economic Bulletin,** Vol. XVII, (Cairo, 1964), p. 180.
(113) National Bank of Egypt, **Economic Bulletin,** Vol. XVII, Op. cit., p. 180.
(114) For details, see Documentation and Research Centre, **Op. cit.**; and Central Bank of Egypt, **Economic Review,** Vol. I, **Op. cit.,** pp. 286-88.

rate of 90 per cent was reached at incomes of L.E. 10,000 and over. For medium-size incomes the marginal rates were fairly modest. For example, at L.E. 4,000, the rate was 15 per cent; and at L.E. 5,000, it was 25 per cent. [115] The tax on buildings was fixed by Law No. 56 of 1954 at a rate of 10 per cent of the annual rental value after deducting 20 per cent allowance for the maintenance and other expenses incurred by the owner. This rate was amended by Law No. 129 of 1961 which fixed a progressive scale of rates varying from 10 per cent of the annual rental value of buildings where the average monthly rental did not exceed L.E. 3 per room to 40 per cent where the average monthly rental was more than L.E. 10 per room. [116]

The fundamental principles, on which such laws were drafted, were finally described and constitutionally adopted in **the National Charter of 1962.** According to this document, "Revolution is the only way to overcome under-development... For the conventional methods of work are no longer capable of bridging the gap of development which has long existed between the Arab Nation and advanced countries." "It is therefore imperative," the Charter continues, "to deal radically with matters and ensure the mobilisation of all the nation's material and spiritual potentialities to undertake this responsibility." [117]
To undertake this responsibility, the Charter asserts, "... the Arab Revolution must have a **new approach, that does not shut itself up within the confines of theories,** which are at once limited and limiting, although it must be no means deny itself access to the rich storehouse of experience gained by other ... peoples..." [118]

It again declares that "the real solutions to the problems of one people **can not be imported from the experiences of**

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(115) For details, see Central Bank of Egypt, **Economic Review,** Vol. I, **Op. cit.,** pp. 288-89.
(116) Central Bank of Egypt, **Economic Review,** Vol. I, **Op. cit.,** p. 289. For more details and also information on laws concerning the reduction of house rents (by 20 per cent), see Documentation and Research Centre, **Op. cit.,** pp. 37-38 and 62-66.
(117) Abb-El-Nasser, **The Charter, Op. cit.,** p. 11.
(118) Abd-El-Nasser, **Op. cit.,** p. 14, (my italics).

another." However, the Charter states, "National experience **does not assume a priori the falsehood of all previous theories, nor does it** categorically **reject** all the solutions reached by others. This would be fanaticism, the full consequences of which, national experiences cannot afford to bear." (119)

In attempting to define the Egyptian socialist system and to determine its position among other social experiences, the Charter states : "The socialist solution to the problem of economic and social underdevelopment in Egypt ... was never a question of free choice." It then goes on to say : "... other experiences of progress realised their objectives at the expense of increasing the misery of the working people, **either to serve the interests of the capital** or **under pressure of ideological applications which went to the extent of sacrificing whole living generations for the sake of others still unborn."** "The nature of the age," it continues, "no longer allows such things." (120) "Facing the challenge," the Charter declares, "calls for three conditions : 1. Assembling the national savings. 2. Putting all the experiences of modern science at the disposal of the exploitation of national savings. 3. Drafting a complete plan for production." "This places a definite conclusion before the will of the national Revolution, without the acceptance of which it cannot realise its objective." "This conclusion," the Charter states, "is the necessity for the people's **control over all the tools of production and over directing the surplus according to a definite plan."** (121)

This, the Charter emphasizes, "... **does not** necessitate the nationalisation of all means of production or the abolition of private ownership or the mere touching (*) of the legitimate right of inheritance following therefrom." This control can be effected according to the Charter in two ways : "First — The

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(119) Abd-El-Nasser, **Op. cit.,** p. 33, (my italics).
(120) Abd-El-Nasser, **Op. cit.,** pp. 43-44, (my italics).
(121) Abd-El-Nasser, **Op. cit.,** pp. 44-45 (my **italics**).
(*) This "official" translation **is rather bad.** "...or the mere touching..." should read "...or even the touching".

creation of a capable public sector that would lead progress in all domains, and bear the main responsibility of the development plan. Second — The existence of a private sector that would, without exploitation, participate in the development within the framework of the overall plan — provided that the people's control is exercised over both sectors." [122]

The Charter then proceeds to spell out the general task of planning as a tool of policy. It states "... planning in our society is required to find out a solution to the difficult formula," namely "... increasing production ..." and "... increasing consumption...", "besides the constant increase of saving for the sake of new investments." [123]

To solve this "formula" "with its three vital branches," the Charter outlines two requirements. The first is "a capable public sector" and a controlling power exercised by the State over the private sector. The second is "a highly efficient planning organization." To ensure the first requirement, according to the Charter, public ownership should embrace all public utilities and other infra-structural assets of the economy; the "majority" of the heavy, medium and mining industries; the "majority" of light industries; all import trade; three-quarters of export trade; "at least" a quarter of internal trade; and all financial institutions. The Charter however maintains that there is a possibility of allowing private ownership in industrial enterprises, particularly light industries, as well as part of export trade and internal trade — provided these activities are under direct public control. [124]

According to the Charter, the approach to Egyptian industrialization should be based on using "the latest scientific achievements." On the labour-intensive technique in this field, the Charter has this to say, "We must put aside the assumption

(122) Abd-El-Nasser, **Op. cit.**, p. 45, (my italics).
(123) Abd-El-Nasser, **Op. cit.**, p. 46.
(124) Abd-El-Nasser, **Op. cit.**, pp. 47-50.

which says that using modern instruments does not give a full chance of work, on the grounds that modern machines do not need large labour power." "This conception may prove sound at the beginning, but it is not valid in the long run. For modern instruments are capable of enlarging the base of production quickly. This opens new horizons of industrialisation, and so gives wider chances of labour as a result." (125)

According to the Charter, the basic strategy of industrial drive is based on the establishment of "... **the essential human equilibrium between development demands and consumer needs."** The application of this principle, the Charter asserts, is through maintaining a balance between heavy industry and consumer goods industry. (126) The Charter proceeds to say : "Heavy industry, no doubt provides the solid foundation to the gigantic industrial set up. Yet, despite the definite priority that should be given to heavy industry, it must not hamper the progress of consumer industries." (127)

In attempting to assure private enterprise, the Charter states : "The aspects of industrial production requirements afford **great possibilities** for non-exploiting **national capital to perform**, together with the public sector, an important and responsible role in the entire process of production." "Moreover," the Charter continues **"the maintenance of the role of the private sector** beside that of the public sector, renders control over public ownership more effective." And "by encouraging competition within the framework of the general economic planning, the private sector is also an invigorating element to the public sector." (128)

In agriculture, according to the Charter, the basic aim of the government is to enlarge the number of landowners and to limit large ownership to a maximum of 100 feddans per family,

(125) Abd-El-Nasser, **Op. cit.**, p. 57.
(126) Abd-El-Nasser, **Op. cit.**, p. 58, (my italics).
(127) Abd-El-Nasser, **Op. cit.**, p. 58.
(128) Abd-El-Nasser, **Op. cit.**, **p. 60, (my italics).**

as mentioned above. The Charter states that the Egyptian socialist system "... does not believe in nationalizing the land and transform it into the domain of public ownership. But from experience and study, it believes, in individual ownership of land, within limits that would not allow for feudalism." "This conclusion," the Charter continues, "is derived from the real circumstances of the agricultural problem in Egypt.. These circumstances have confirmed **the ability of the Egyptian farmer for creative work, under favourable conditions."** (129)

The Charter then emphasizes that "the success of this revolutionary attempt at solving the agricultural problem, based on increasing the number of landowners, cannot be consolidated except by agricultural co-operation, and by the expansion of its scope to the extent of providing a strong and vital economy for the small land holdings." (130) Besides, according to the Charter, there are three basic fields of action to increase agricultural production. These are : 1) horizontal extension of agriculture, by reclaiming the desert and waste land ; 2) "vertical extension in agriculture," through raising the productivity per unit of cultivated land ; and 3) industrialization of the countryside — based on agricultural raw materials and products — which will considerably ease the population pressure on land. (131)

With respect to the organizational question of this planning experiment, the Charter declares that planning organization "... must depend on centralisation in planning and decentralisation of implementation which ensures placing the planning programmes in the hands of all the people." (132)

Finally, in the closing sentences of Chapter 7 : "Production and Society," the Charter warns the nation that "We must **always** bear in mind that **the needs of defence should never have the upper hand over the needs of development."** (133)

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(129) Abd-El-Nasser, **Op. cit.**, p. 54, (my italics).
(130) Abd-El-Nasser, **Op. cit.**, p. 55.
(131) Abd-El-Nasser, **Op. cit.**, pp. 55-56.
(132) Abd-El-Nasser, **Op. cit.**, p. 46.

So, in one hundred pages Nasser explains and outlines the basic principles and policies underlying the Egyptian "socialist pattern of society" and its planned attempt for development. These basic principles and policies were incorporated in the planning documents and activities of the 1950's and 1960's, as will be examined in Chapters V and VI.

From the above account, one can see that both Indian and Egyptian authorities have stressed that the philosophy of their planning experiences during the 1950's and the 1960's was not based on "a priori doctrinaire theories," but it stemmed from the prevailing internal conditions and the obvious pressing necessities for economic development. The basic objective of these experiences was to establish a "'developed' socialist pattern of society."

In both cases, the importance of the public sector as well as the need for "co-operation" between the private and the public sectors was very much emphasized. However, this postulated "co-operation" was never spelt out in detail. Apart from agriculture, the public sector's sphere of activities was substnatially extended against that of the private sector. In the Indian case, this was effected with respect to future development activities, leaving the present activities of each sector as they were before the policy measures were enacted. In the Egyptian case, it was done with regard to both present and future activities.

In India, through succesive but "gradual" policy measures, the spheres of future activities of the two sectors were fairly clearly demarcated. By 1956, according to the Industrial Policy Resolution of that year, the public sector was made exclusively responsible for future development of all basic and heavy industries, intermediate goods industries, and some consumer goods industries, as detailed above. It was also authorized to establish any line of industrial activity. Consequently, the sphere of future activities of the private sector was considerably limited.

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(133) Abd-El-Nasser, **Op. cit.**, p. 67, (my italics).

In Egypt, through successive and "rapid" nationalization measures, the public sector dominated the organized business. By the end of 1961, most of organized industries and all financial institutions were in the hands of the public sector. Through subsequent nationalizations in 1962, 1963, 1964 and 1967, private enterprise in the organized business was virtually eliminated.

These and other basic principles and policy measures, mentioned in this section, are going to be quantitatively examined and evaluated through our examination and appraisal of the two planning experiences in the rest of this study — Chapters V, VI, VII and VIII.

CHAPTER V

PLANNING OUTLINE AND STRATEGY, PHASES I & II

Planning ... is not a mere process of working out the possible, it is a process of achieving hope.

GAMAL ABD-EL-NASSER, "The Charter", (1962).

Planning will help us in having an emotional awareness of our problems as a whole.

JAWAHARLAL NEHRU,

Quoted in K.N. Bhattacharyya, **Indian Plans : A Generalist Approach,** (London : Asia Publishing House, 1963).

As mentioned in Chapter IV, Section I, planning in the two countries has passed through four distinctive phases during the 1950's and the 1960's. These phases form a continuing series of attempts to deal with the economic problem. They also represent a picture of the whole development process in India and Egypt in terms of investments, benefits and difficulties. They clearly illustrate the continuity of this process and the evolution in basic economic and social policies involved, as described in Chapter IV, Section II. As will be seen below, there are important adaptations from one phase to another reflecting changing of conditions and problems as well as changing of emphases on objectives and policy measures. This Chapter and the next will deal with these four phases from the view point

of planning outline, methods and strategy. Chapters VII and VIII will be devoted to an evaluation of the actual results achieved and their effects on the two countries' major economic problems.

This Chapter covers the first two phases, namely, planning in the 1950's. Planning in the 1960's will be the subject matter of the next Chapter. Unless explicity stated, these two Chapters will exclusively be dealing with planned data. (1)

I — THE FIRST PHASE

During this phase, (1951/52-1955/56), planning in India and Egypt was in the character of re-construction activity with more emphasis on the immediate requirements and possibilities of the economy than on the long-term perspective of economic development. Investment priorities were apparently determined less as part of an over-all approach to development needs over a long period than as ad hoc concern with post-war immediate economic problems. (2) In both countries, planning efforts were more a compilation of projects on hand than a consistently evolved comprehensive scheme. Furthermore, the scope and nature of these planning efforts were themselves in a state of marked flux. It was particularly so in Egypt than in India, as will be seen below.

Egyptian experience during this phase was, as it were, planning without a plan. Contrary to India which had its formal plan, Egypt acted during this period with no more formal planning arrangements than a public investment programme co-ordinated through the yearly State budgets and accompanied by some policy measures which attempted to create a favourable climate for private investors and to influence them to react in accord with national development objectives. However, one

(1) It will be noted that the treatment of this Chapter is not as systematic and comparative as that oh the next Chapter, mainly due to the scant and deficient planned data during the first two phases, particularly in the Egyptian case. See below.
(2) For details on the basic economic problems of the two countries, see Chapter III, above.

must emphasize, as Professor Cairncross does, that it is a mistake to suppose that nothing ever gets decided or "planned" until there is a formal plan. "Just as it is nonsense to equate planning with the publication of a quinquennical plan, so it is nonsense to thick that a plan settles everything and that no sensible decisions can be taken without one." (3)

In **Egypt,** from 1951/52 to 1955/56, the decision-makers aimed at the development of national economy, but they did not attempt to plan for it in aggregate terms. In other words, they did not set aggregate quantitative targets to be achieved. They rather allocated public development expenditure project-wise, devised some encouraging policy measures for the private sector, (4) and left this sector to work freely. (5) However, **an attempt** is made here to sketch roughly the "possible" magnitude of change, in terms of national income, aimed at by the Egyptian authorities during the period of this phase. (6) From the scanty data available in official and other sources with regard to development objectives, government intentions and economic projections concerning this period, (7) it seems that the order of magnitude of national income change was roughly expected to be as follows.

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(3) See A.K. Cairncross, "Programmes as Instruments of Co-ordination" **The Scottish Journal of Political Economy,** Vol. VIII, (June, 1961), p. 90.

(4) As mentioned in Chapter IV, Section II, above, and this Chapter below.

(5) That is why this phase was called the 'project-planning phase', in the Egyptian case, in Chapter IV, Section I, above.

(6) One must emphasize that this exercise is very rough. The margins of error either way are probably very high, particularly if one considers the erratic nature of the Egyptian economy due to its high sensitivity to crop changes and to fluctuations in international market and trade, as mentioned in Chapter III. The roughness of this exercise is apparent from our analysis of the performance of the economy during this period in Chapter VII. However, a mere projection of the 1946-50 performance, analysed In Chapter III, into the period of this phase would be a sheer exaggeration, simply because of the peculiarities of the former period, as detailed in Chapter III. Equally, one can not assume that the absence of explicit quantitative aggregate targets means "zero" (i.e. no-change) extrapolation with respect to national income by the government. Instead, from the scattered information available on this period, this exercise is attempted.

(7) See Republic of Egypt, The Permanent Council for the Development of National Production, **Interim Report,** (airo, 1955), (in Arabic) ; A. Sherief, "General Trends of Growth of the Egyptian Economy...", **Op. cit. ;** M. El-Imam, "A Production Function for Egyptian Agriculture...", **Op. cit. ;** and Hansen and Marzout, **Op. cit.**

According to these sources, the basic data are : 1) an annual average share of national fixed investment (net of replacement and depreciation) in national income of about 13 per cent; 2) a net capital-output ratio of about 3:1; 3) an annual average share of replacement and depreciation in national gross fixed investment of about 25 per cent; 4) an annual average of total gross domestic savings as equal to about 13 per cent of national income; and 5) an annual average rate of population growth of about 2.5 per cent. [8]

From these data, one gets an "expected" annual average increase in national income of about 4.3 per cent during the period 1951/52-1955/56. [9] Taking the level of national income in the base year (1950/51) as equal to 100, the expected national income index would be 121.5 in the end year (1955/56), at 1950/51 market prices. Rough estimates of national income suggest that it amounted to some L.E. 789 million in 1950/51, and current market prices. [10] Accordingly, the expected national income in 1955/56 would be about L.E. 959 million, at 1950/51 prices. So, the total increase in national income was expected to be about L.E. 170 million by the end of the period. Using the information on the capital-output ratio, this over-all increase would be brought about by a total net fixed investment of about L.E. 522 million. [11] From this and the information on replacement and depreciation, total gross fixed investment would be

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(8) See Sherief, "General Trends of Growth of the Egyptian Economy...", **Op. cit.**, pp. 3 and 10-12; Hansen and Marzouk, **Op. cit.**, pp. 8-9; El-Imam, "A Production Function...", **Op. cit.**, p. 36; and The Permanent Council for the Development of National Production, **Op. cit.**, p. 4.

(9) Compared with an actual annual average increase of 6.22 per cent during 1946-50 (see Chapter III), this rate seems "reasonable", if not modest.

(10) See, National Bank of Egypt, **The Economy of the United Arab Republic During the Nineteen-fifties, Op. cit.**, p. 51.

(11) By applying the above capital-output ratio, one gets a total of L.E. 510 million. However, a more refined method was used to get the above total of L.E. 522 million. By applying Hansen-Marzouk regression for the period 1946-1962/63 between national income (Y) and investment (I), this total is obtained as follows:

$$(\Delta Y) = -0.027 + 0.326\ (I)$$
$$170 = -0.027 + 0.326\ (I)$$
$$(I) = 170.027/0.326 = 522$$

This regression implies a capital-output ratio of about 3.07 : 1. See Hansen and Marzouk, **Op. cit.**, pp. 8-9.

about L.E. 696 million, with an annual average of about L.E. 139 million during the five-year period, at 1950/51 market prices. With an expected annual average national income of about L.E. 823 million and the information on domestic savings, the annual average gross domestic savings would be about L.E. 107 million. This gives us an estimate of total gross domestic savings of L.E. 535 million during the five-year period, at 1950/51 market prices.[12] The finance gap of about L.E. 161 million or about 23 per cent of total expected gross fixed investment would consequently be the order of magnitude of foreign borrowing.

Finally, with total population of 20.9 million in 1950/51 (see Table VIII-A-45 in Appendix A below), a postulated rate of population growth of 2.5 per cent per annum, and the above data on national income, the annual average increase in per capita income would be about 1.6 per cent during the five-year period, at 1950/51 market prices.[13] These projected aggregate data seem to be in general conformity with the basic economic policies of the government and the planned sectoral data available during this period as shown below.

Table V.1 gives **the annual planned development expenditure**[14] by government for the period 1950/51-1955/56, at current and 1950/51 market prices. From this table, development expenditure by government for the period 1951/52-1955/56 was expected to be about L.E. 326.3 million, at 1950/51 prices. According to the above projections, this means that the share of private sector in the expected total gross investment (of L.E. 696 million) would be about L.E. 369.7 million, or about 53 per cent.

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(12) Domestic savings include public and private savings as well as financial resources from other sources such as withdrawals from Government Reserve Fund. See Table V.3 in this Chapter, below.

(13) From the data mentioned above per capita income was expected to rise from L.E. 37.75 in 1950/51 to L.E. 40.81 in 1955/56, at 1950/51 prices, an over-all increase of about 8.1 per cent in the five-year period.

(14) Development expenditure is defined as fixed investment gross of replacement and depreciation. See Source of Table V.1, below.

TABLE V.1

PLANNED DEVELOPMENT EXPENDITURE BY GOVERNMENT

(In L.E. Mns.)

Year	Index Number of Wholesale Prices	Planned Expenditure At :	
		Current Prices	1950/51 Prices
1950/51	100	39.1	39.1
51/52	108	35.6	33.0
52/53	99	25.6	25.8
53/54	99	72.9	73.6
54/55	97	84.8	87.4
1955/56	104	110.7	106.5

Note : 1 — Prices are for calendar years, e.g., 1950/51 prices are in fact for 1950.
Source : National Bank of Egypt, **The Economy of the United Arab Republic..., Op. cit.,** pp. 50 and 52.

The share of public sector in expected total gross fixed investment during this period (47 per cent), compared with its share during the pre-planning five years (14 per cent), discussed in Chapter III, indicates the growing role of government in the economic activities of the country and its growing concern of the development of the national economy. To create a favourable environment for private enterprise, it seems that the government intended to limit its future economic activities during this period in fields of traditional interest to the State such as the maintenance and extension of the irrigation system, investment in railways and in electricity, and provision of health and educational facilities. Table V.2 below gives a general idea on the pattern of distribution of planned government investment among various economic activities, during the period under discussion. From the data of this table, one can see that the shares of irrigation and drainage; electricity; transport, communications and storage; housing and public utilities; and other services constitute most of the total (81.5 per cent).

TABLE V.2

DISTRIBUTION OF PLANNED GOVERNMENT INVESTMENT, BY INDUSTRIAL ORIGIN

(At 1950/51 Prices)

Industrial Origin	Total Outlay L.E. Mns.	%
1. Agriculture	33.0	10.1
2. Irrigation & Drainage	44.7	13.7
3. Industry	27.4	8.4
4. Electricity	49.9	15.3
5. Transport, Communications & Storage	64.6	19.8
6. Housing & Public Utilities	56.4	17.3
7. Other Services	50.3	15.4
TOTAL	326.3	100.0

Notes: i — Agriculture includes the High Dam item which was in the study-stage during this period.

ii — Industry includes development expenditure of the "Iron and Steel General Authority", and "Public Organization for Printing".

iii — Other services include educational, health, cultural, recreational, social, religious, commercial, public administration, and defence and security.

iv — The % distribution is obtained from the actual distribution of government investment during 1951/52-1955/56. It is used here for lack of planned data to get the absolute-value distribution.

Sources: National Bank of Egypt, **The Economy of the United Arab Republic..., Op. cit.,** pp. 56-57 and 88-89.

Contrary to the situation of the pre-planning five years, discussed in Chapter III, planned government savings (budget surpluses) were not expected to cover this investment commitment. The resultant financial deficit was expected to be met from sources other than budgetary revenue, as well as from domestic and foreign borrowings. Table V.3 below roughly sketches **the order of magnitude of various sources of finance** of planned government investment during the period under discussion.

TABLE V.3

FINANCING PLANNED GOVERNMENT INVESTMENT

(At 1950/51 Prices)

Source	Total Resources L.E. Mns.	%
I — Public Savings		
1. Surplus of State budget	90.0	27.6
II — Other Sources		
2. Government Reserve Fund	62.8	19.2
3. Re-valuation of Gold Reserves	11.9	3.6
4. Government Account in the Treasury & National Bank of Egypt	19.7	6.0
5. Miscellaneous	20.1	6.2
III — Borrowing		
6. Domestic Borrowing	49.8	15.3
7. Foreign Borrowing	72.0	22.1
TOTAL	326.3	100.0

Notes : i — The above data were planned on annual basis, see Sources.
ii — Foreign borrowing was obtained as a residual.
iii — All figures have been adjusted from current market prices to 1950/51 prices according to the wholesale prices index.

Sources : National Bank of Egypt, **The Economy of the United Arab Republic..., Op. cit.,** pp. 48-50, 58 and 61 ; and S.A. El-Bawab, "Savings, Investments and the Financial Resources Available for Investments in the Public Sector During the Period 1952-56", the National Planning Commission, **Memo. No. 146,** (Cairo, 1959), (in Arabic), p. 32.

Though budgetary surpluses were still expected to be the major source of finance for public development outlay, nearly a third of total financial resources required was expected from other sources of a deficit-financing nature, such as the withdrawals from government Reserve Fund and government

Accounts, and the re-valuation of gold reserves. A sizable gap (of 22.1 per cent) was left to be covered by external borrowing.[15]

These are the basic features of investment allocation and finance patterns of public development outlay during this period. This outlay was entrusted on annual basis to various government departments and agencies for detailed plan formulation as well as implementation, project-wise. During the first year (1951/5), government investment was planned and expected to be implemented by various Ministries of production and services [16] after it had been subjected to the consideration, revision and co-ordination of the Ministry of Finance, the Council of Ministers, the Supreme Consultative Economic Council, [17] and the two Houses of Parliament, mainly through the discussion of the State Budget. With the backlag of development projects either in progress or left unimplemented. from the government public works plan of 1946-50, discussed in Chapter IV, the task of these organs was reduced to appropriate allocation of investible funds among existing or already studied projects.

In October, 1952, however, the Supreme Consultative Economic Council was abolished by the new regime which established in its place two institutions : 1) for production, the Permanent Council for the Development of National Production, PCDNP. (October, 1952) ; and 2) for services, the High Committee for planning and Co-ordination (December, 1952.[18] This Committee was replaced by the Permanent Council for Public Services, PCPS, 1953. In 1955, a National Planning Committe, attached to the Council of Ministers, was established for co-or-

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(15) Or further releases from Egypt's Sterling balances. See El-Bawab, **Op. cit.** ; and Mead, **Op. cit.**, pp. 184-85.

(16) Such as Ministry of Agriculture, Ministry of Industry and Trade, Ministry of Public Works, etc. ; and Ministry of Transport, Ministry of Health, Ministry of Education, Ministry of Social Sservices, etc.

(17) This Council was established in December, 1950. For information on this Council, see the Official Newspaper, **Al-Wakieh,** (Cairo, Dec., 1950).

(18) For detailed information on these two institutions, see **PCDNP, Interim Report. Op. cit.**, pp. 401-21 ; A.M. Farag, "National Planning in the United Arab Republic", Ministry of Planning, **Memo. No. 559,** (Cairo, Nov., 1961), (in Arabic), pp. 3-5 ; and the Technical Bureau, Ministry of Planning, "Memorandum on the Legislations Regulating the Socialist Planning in the United Arab Republic, 1952-1964", Ministry of Planning, **Memo. No. 675,** (Cairo, April, 1964), (in Arabic), pp. 1-2.

dinating the work of the two Councils, PCDNP and PCPS. [19] However, various Ministries in both production and Services fields still largely remained the basic planning and implementing units in the system. These Ministries worked either independently or through the two Councils, with the over-all supervision and final approval of the Council of Ministers. [20]

The main purpose of PCDNP was to examine the country's resources and potentialities, and to try to exploit them fully by studying and recommending policies and projects for economic development. According to Law No. 213 of 1952 which decreed the setting up of the Council, [21] these development projects were to be embodied in a three-year integrated programme of national economic development to be implemented in three annual stages. During its first year and before finishing the formulation of its first programme, the Council was empowered to choose some « urgent » projects, which had already been studied by various Ministries, for immediate implementation.[22] Its task was also to propose « detailed » means of financing the planned and approved (by the Council of Ministers) projects, and to make the necessary recommendations for their implementation. Furthermore, the Council was charged with project implementation either directly or through the various Ministries concerned or in collaboration with the private sector. [23]

The PCDNP had its own annual development budgets, the revenues of which consisted of the Council's appropriations in the State budgets and other sources of finance, as specified in Table V. 3 above. These revenues however constituted only a part (though a large one) of the total planned financial resources for development in the public sector. By July 1953, the Council produced a four-year programme of development which required total gross fixed investment of L.E. 21.7 million, at current

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(19) For information on this Committee, See Farag, **Op. cit.**, pp. 7-8 ; and the Technical Bureau, **Op. cit.**, pp. 2-3.
(20) See PCDNP, **Interim Report, Op. cit.**, pp. 404-07 ; The Technical Bureau, **Op. cit.**, pp. 1-2 ; and Farag, **Op. cit.**, pp. 3-8.
(21) This Law is reproduced in PCDNP, **Interim Report, Op. cit.**, pp. 402-08.
(22) PCDNP, **Interim Report, Op. cit.**, p. 403.
(23) PCDNP, **Interim Report, Op. cit.**, pp. 404-07.

market prices, during the four-year period (1952/53 - 1955/56). [24]

However, from 1953/54 and onward, new projects were yearly incorporated in the programme and had been presented in the annual budgets of the Council. [25] Consequently, the appropriated investible funds reached by the end of the programme period a total of about L.E. 139.5 million, at current market prices, which was about seven times as large as that originally planned. At 1950/51 prices, the final total outlay was about L.E. 139.2 million (see Table V. 4 below), or about 42.7 per cent of planned total gross investment in the public sector during the five-year period, under discussion.

This planned outlay of the Council's programme was based on and distributed among specific and « thoroughly » studied individual development projects in agriculture ; industry ; power ; transport, communications and storage ; and agricultural and industrial research. These projects ranged from land reclamation, irrigaton, drainage and other agricultural projects ; iron and steel, oil refining and fertilizers projects ; railway, road and electrical power projects ; etc., to research work on the High Dam project ; mineral surveying scheme, etc. [26] These projects remained by and large of a type traditionally undertaken by government or a type which private enterprise was content to leave to public risk or need the help and participation of the public sector.

On the whole, the Council's programme was very much in conformity with the general pattern of public investment allocation, presented in Table V. 2 above. The shares of agriculture ; land reclamation ; irrigation and drainage ; electricity ; and transport, communications and storage constituted about 90.1 per cent of the total planned outlay of the programme. The rest (9.9 per cent) was for industry and residential buildings, as shown in Table V. 4.

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(24) See A.A. El-Kashif, "The Financial Policy of the Permanent Council for the Development of National Production and the Important Developments in its Budget", The National Planning Commission, **Memo. No. 108,** (Cairo, 1959), (in Arabic), p. 5.

(52) El-Kashif. **Op. cit.**, pp. 5-6 and 9-11 ; and PCDNP, **Interim Report, Op. cit.,** pp. 461-85.

(26) No definite date had been set for the completion of most of these projects. See El-Kashif, **Op. cit.,** pp. 5-6. For detailed description of these projects one by one, see PCDNP, **Interim Report, Op. cit.,** pp. 21-399.

TABLE V.4

DISTRIBUTION OF PLANNED INVESTMENT OF THE PCDNP'S PROGRAMME, BY INDUSTRIAL ORIGIN

(At 1950/51 Prices)

Industrial Origin	Total Investment L.E. Mns.	%
1 — Agriculture	14.9	10.7
2 — Land Reclamation	20.3	14.6
3 — Irrigation & Drainage	17.2	12.3
4 — Industry	12.8	9.2
5 — Elestrisity	39.6	28.5
6 — Transport, Comm. & Storage	33.4	24.0
7 — Residential Buildings	1.0	0.7
Total	139.2	100.0

Notes: i) — Agriculture includes the High Dam Project which was at the study-stage.
ii) — The original data were at current market prices. They have been adjusted to 1950/51 prices according to the wholesale prices index.

Sources : El-Kashif, « The Financial Policy of the Permanent Council for the Development of National Production . . . », **Op. cit.**, pp. 10-11 ; and PCDNP, **Interim Report, Op. cit.**, pp. 461-85.

In the field of public services other than transport, communications and storage, and housing, [27] Ministries concerned were the planning and implementing organs during the five-year period. In 1952/53, their activities were supervised and co-ordinated by the High Committee for Planning and Co-ordination, as mentioned above. This Committee had in each services Ministry a ministerial committee called « Committee for the Five Year Programme ». [28] These ministerial Committees as-

(27) For specification of these services, see note (iii) of Tabe V.2. above.
(28) See Farag, **Op. cit.**, p. 5.

sisted the High Committee in its work by assuming the planning function in their respective Ministries.

However, the work of these committees had not ended up with five-year programmes as their name indicated. It was rather a yearly budgeting of the services' Ministries development expenditures which were very much project-oriented.[29] These committees were abolished when the High Committee was replaced in 1953 by the Permanent Council for Public Services, as mentioned above. This Council assumed similar functions to those of the PCDNP, in the field of services.[30]

The PCPS reviewed the situation of public services in the country and, through the Ministries concerned, formulated ten-year programmes in the fields of health and education for the period 1953/54 — 1963/64, and annual programmes for other services.[31] These programmes were very roughly planned. For most of them, neither required investments nor financial sources were estimated. All was left to the financial appropriations in the State budget for the yearly development expenditure of each services Ministry. Even in this respect, no detailed statistical data are available.[32] However, the data of Table V.2 above suggest that the share of services (other than transport, communications and storage) in total planned government investment was about L.E. 106.7 million at 1950/51 prices, or about 32.7 per cent, during the five-year period.

One of the most ambitious programmes of the PCPS was the « Combined Unit Programme ». It was based on dividing the whole countryside into small areas (864 areas, each of 15,000 inhabitants). Each of these areas was to be served by a « social unit » which combines a school, a club, a hospital and a library. The Council assumed that there were already 269 institutions which could be considered as units, at the time of

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(29) Farag, **Op. cit.**, pp. 5-6

(30) For details on the functions of the Council, see Republic of Egypt, The Permanent Council for Public Services, **Atlas of Services, 1957,** (Cairo, 1957), (in Arabic).

(31) PCPS, **Op. cit.**, pp. 6-9, 58-67 and 109-13.

(32) See PCPS, **Op. cit.**; and National Bank of Egypt, **The Economy of the United Republic . . . . , Op. cit.**, pp. 51-58.

implementing the programme. [33] The rest of the programme was then divided into annual programmes. According to 1954/55 and 1955/56 programmes, the Council planned to establish 200 unites per year at a total gross investment of L.E. 37,000 per unit. Total gross investment for the two annual programmes was thus expected to be about L.E. 14.8 million at current market prices. [34] Again, there are virtually no data about how the costs per unit were calculated and how total development outlay of this programme was distributed among various Ministries. However, from the available informatinn on the implementatin of the programme, it was discovered that the initial costs had been very much underestimated. [35]

From the above account on planned government investment and its distribution by activities and implementing organs, it appears that this investment had been designed to create a more efficient infra-structure within which private enterprise could operate more effectively. **Additional measures** in both industrial and agricultural fields were taken by the government to encourage private enterprise to actively participate in the development process.

As mentioned in Chapter IV, during this period the government enacted legislation to remove some of the obstacles and difficulties which stood in the way of the development of industry or the exploitation of natural resources of the country. A number of laws were introduced the purposes of which were to protect « infant » industries, to facilitate the importation of capital goods and raw materials, to encourage the investment of Egyptian and foreign capital in the industrial field, to facilitate the granting of loans by financial institutions to industries, to encourage private enterprise to establish new industries and to expand existng ones, and to encourage industrial research.

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(33) The rate of services of these units was estimated by the Council as about 30 per cent, for areas with social services units, and 50 per cent, for areas with health services units, of the « desired » services, See PCPS, **Op. cit.**, p. 111.,

(34) PCPS, **Op. cit.**, p. 109.

(35) See National Bank of Egypt, Egypt's **Economic Growth, 1952-63, An Appraisal,** (Cairo, 1964), p. 12.

High protective tariffs and import controls on competing foreign goods were introduced.[36] Customs duties on raw materials and capital goods were lowered or completely abolished (Laws Nos. 324 of 1952 and 408 and 502 of 1955). The paying back of all customs duties formerly collected on imported materials used in the manufacturing of export products was effected (Law No. 325 of 1952). New companies were exempted from profits tax for seven years ; existing companies were released from profits tax for five years on new share issues ; and on all undistributed profits companies had to pay only 50 per cent of the profits tax, (Law N. 430 of 1953). Foreign capital was allowed to have a majority control of companies operating in Egypt, and to be transferred abroad after five years from the date of its entrance into the country, at a value not exceeding one fifth of its registered value each year (Law Nos. 120 of 1952, 156 of 1953 and 475 of 1954). Small savers were encouraged to invest in industry by lowering the denomination of a minimum price of a share from L.E. 4 to L.E. 2 (Law No. 26 of 1954). The establishment and management of various companies were regulated to safeguard the interests of small investors (Law Nos. 26 of 1954 and 155 of 1955). One of the aims of the Agrarian Reform Law No. 178 of 1952 was to direct national capital more to industry than agriculture by limiting land ownership and discouraging further land purchases, and by allowing the affected landowners to use their State bonds in investment in industrial enterprises.[37] However, the investible funds released from agriculture seemed to go into high-income residential buildings. Consequently, the government passed a law limiting investment in buildings, having in view the aim of directing capital towards industry (Law No. 344 of 1956).

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(36) Tariffs were not uniform but varied from commodity to commodity. As Professor Hansen and Dr. Marzouk put it, « it is impossible to give a single unambiguous quantitative expression for the « degree » of protection. » However, they estimated that from 1952 to 1959 the ratio of import duties paid to dutiable imports (excluding imports of capital goods, raw materials and essential foodstuffs all of which enter at very low rates or even duty-free) rose by about 87 per cent to reach an average tariff rate of about 131 per cent. See Hansen and Marzouk, **Op. cit.**, pp. 151-52.

(37) See Chapter IV and references cited there.

Several laws were issued to consolidate and facilitate the task of the Industrial Bank with respect to its credit facilities to industry by raising the government guarantee of the loans by the bank from L.E. 2 million to L.E. 5 million, and with regard to its direct participation in some projects (Laws Nos. 35 of 1953 and 144 of 1955). There are also several laws which were issued to deal specifically with certain industries as in the case of Law No. 251 of 1953 relating to the establishment of a fund for the support of cotton spinning and textiles industry, and Law No. 66 of 1953 which facilitated and encouraged mineral research and prospecting. [38]

In agriculture, after limiting the maximum land ownership by 200 feddans per person and decreeing that the excess was to be expropriated and redistributed to small farmers in lots of 2-5 feddans, [39] the Agrarian Reform Law No. 178 of 1952 fixed rents for all agricultural land as not to exceed seven times the amount of the basic land tax. [40] In the case of a rent based on crop-sharing the landowner's share was not to exceed one half after deduction of « all expenses ». Minimum daily wages were prescribed for agricultural workers at about 4 s. for male adults and 2 s. for female adults as well as for males and females under 18 years of age. [41]

In virtue of this Law, agricultural co-operative societies were to be formed in the land reform areas. Their functions were to provide their members with loans, seeds, fertilizers, livestock, agricultural implements, and means of storage and transport ; to organize and improve the cultivation of land through seed selection, varieties of crops, pest control, etc., to sell the principal crops on behalf of the members and to deduct from the price of such crops instalments in respect of the price of land, government taxes, and agricultural and other loans ;

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(38) For detailed information on these laws, see Ministry of Industry, **Industry after the Revolution . . . ., Op. cit.**, pp. 43-44 and 201-06 ; and PCDNP, **Interim Report, Op. cit.**, pp. 442-58.

(39) For informaion on compensation to old owners and on the price that beneficiaries had to pay under this law, see Chapter IV above.

(40) On average, it was assessed as about L.E. 3 per feddan, see Hansen and Marzouk, **Op. cit.**, p. 90.

(41) See Agrarian Reform Organizaion, **Op. cit.**, p. 35, footnote (1).

and to render other agricultural and social services. Together with other existing institutions, [42] these societies were the basic organs responsible for the implementation of government policy measures concerning « short-term » agricultural development, such as : credit facilities, improved seeds, fertilizers and other chemicals, improved methods of cultivation, etc. [43]

From the foregoing account on the outline and strategy of Egyptian planning efforts during 1951-52 — 1955-56, one can see that national systematic planning was virtually absent. However, important changes of policy took place during this period which may be described as on the whole favourable and necessary for further economic development. According to the Egyptian planners, « good planning » was taken to mean simply to have « thoroughly » studied and prepared single projects. A particularly « micro » conception of planning lay behind the activities of this phase. A « thorough » investigation implied undertaking « proper » engineering and market studies together with evidence that the project would be fully financed. [43] These projects were then embodied in development programmes according to some very general and rather vague criteria. For short-run projects, these criteria were the contribution of the project to national production, the total requirements in time and resources for its implementation, and its savings of foreign exchange through import substitution. [45] According to the PCDNP, the chosen project must be « relevant to the economy », « more productive », « easier to implement » and « less expensive ». [46] For long-run projects, the main

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(42) Which were the Agricultural and Co-operative Bank and its branches in the rural areas and the rural general co-operative societies.

(43) For details, see Agrarian Reform Organization, **Op. cit.**, pp. 21-22 ; and PCDNP, **Interim Report, Op. cit.**, pp. 27-40.

(44) See, e.g., N. Deif, « Some Uses of Economic Accounting in Planning Economic Development of the U.A.R. », The Institute of National Planning, **Memo No. 210**, (Cairo, August, 1962), pp. 1-3 ; and I.H. Abd-El-Rahman, « Comprehensive Economic Planning in the U.A.R. », The Institute of National Planning, **Memo No. 238**, (Cairo, Sept., 1962), pp. 1-2.

(45) PCDNP, **Interim Report, Op. cit.**, pp. 22-23 and p. 403.

(46) PCDNP, **Op. cit.**, p. 403.

criteria were the importance of the project to further development and its financial feasibility. [47]

In the Indian case, a « formal » plan for economic development was launched in December, 1952. This was the First Five Year Plan (April 1951 — March 1956). However, as in the Egyptian case, this plan was no more than a collection of individual development projects, most of which were already in progress even before the plan was put in its final form.

The evidence in support of this assertion is that in July, 1951, the Planning Commission presented a draft outline of a plan of development for the period in question. This « Draft Plan » largely consisted of development projects which had already been taken in hand. It was divided into two parts, to use the Commission's own words, « the first involving an expenditure of Rs. 1,493 croses and consisting largely of projects in execution which were to be implemented in any case, and the second proposing an outlay of Rs. 300 crores which was to be undertaken if external assistance were available. » [48] The commission then emphasized that « all the development projects included in the Draft Outline are of course included in the Plan as it has been now prepared » as a single and final plan. [49] Or, as the Commission later put it in its final progress report on the Plan : « to an extent, the plan was an attempt to synthesise and coordinate the development programmes that had already been initiated ». « But, » the Commission added, «it would be wrong to minimise the significance of the enunciation of the wider objectives and approaches and of the foccussing of public attention on the problems of development as such. » [50]

The Plan was deliberately a partial plan in the sense that it was essentially a programme of public sector development expenditure during the five-year period. This development

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(47) Generating electricity from the Asswan Dam and the High Dam Project are cases in point, See PCDNP, **Interim Report, Op. cit.,** particularly pp. 129-35, 177-78 and pp. 287-88.

(48) Planning Commission, **The First Five Year Plan, Op. cit.,** p. 2.

(49) Planning Commission, **The First Five Year Plan, Op. cit.,** p. 3.

(50) Gov. of India, Planning Commission, **Review of the First Five Year Plan,** (New **Delhi, 1957), p. 2.**

outlay was allocated to projects of a type traditionally undertaken by government or centred in projects which private sector was unable or unwilling to put up the resources required and run the risks involved. The rest of the economic field was left free for private enterprise, subject only to some governmental policy measures aiming at influencing and encouraging private sector to react in accord with national development objectives. [51]

Furthermore, a development programme for organized large-scale private industries was prepared by the Planning Commission and other governmental agencies (notably the Ministry of Commerce) in close collaboration with development Councils representing individual industries as well as with industrial associations. Although the government did not take any direct responsibility for the implementation of this programme, it did join in outlining a possible pattern for financing, including loans from government financial institutions. The government also made clear its intent to take these private development goals into account in allocating foreign exchange and in issuing licenses authorizing expansion. This programme which was for the same period of the Plan was therefore fitted in a general planning approach for the whole economy, as will be discussed below.

Though the First Plan was to some extent a partial plan, it was comprehensively conceived against a longer perspective. In formulating the Plan, the main considerations that have been taken into account were : (1) the need for initiating a process of development that will form the basis of the much larger effort needed in the future ; (2) the total resources likely to be available to the country for the purpose of development ; (3) the close relationship between the rates of development and the requirements of resources in the public and in the private sectors ; (4) the necessity of completing the schemes of devolapment initiated by the Central and State Governments prior to the commencement of the Plan ; and (5) the need to correct

(51) These measures which were outlined in the Plan in detailed but rather vague manner will be briefly mentioned below.

the maladjustments in the economy caused by the war and the partition. (52)

Accordingly, the Plan had a two-fold objective. Firstly, it aimed at correcting the « disequilibrium » in the economy caused by the War and the partition of the country. Secondly, it proposed « to initiate simultaneously a process of all-round balanced development which would ensure a rising national income and a steady improvement in living standards over a period » (53) with particular emphasis on the development of certain basic resources so as « to lay down the foundation of more rapid economic growth in the future ».(54)

The Planning Commisson consequently emphasized the necessity to visualise the problem of development over a period of « . . . twenty-five or thirty years » and to view the immediate five-year period in this broader context. Admittedly, as the commission strongly argued, in formulating a plan of development for a particular period, an estimate of what is feasible must no doubt carry more weight than abstract reasoning as to a desirable rate of growth. (55) In accordance with this general principle, the targets (in terms of investment and income) of the Plan and a longterm perspective were projected from a simple aggregative model for the economy as a whole — essentially similar to that assumed in the Egyptian case.

The Indian planners assumed a certain overall capital-output ratio for the entire economy. Next, they put up growth targets in terms of national and per capita incomes. Then, they calculated the aggregate investment that would be needed to fulfil these targets. Of course, the volume of investment required would depend upon the present levels of national income and population, and the postulated data on the annual rate of growth of population, the capital-output ratio, and the rates of growth of national and per capita incomes. Then, the planners had to find out what

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(52- Planning Commission, **The First Fivfe Year Plan, Op. cit.**, p. 70.
(53) Planning Commission, **Review of the First Five Year Plan, Op. cit.**, p. 1.
(54(Gov. of India, Planning Commission, **The First Five Year Plan": A Draft Outline,** (New Delhi, 1951), pp. 16-17.
(55) Planning Commission, **The First Five Year Plan, Op. cit.**, p. 17.

percentage of annual income had to be saved over the entire planned period so that the required investment could be financed.

This base year (1950/51) data of the projection were estimated as : (1) national income of about Rs. 9,000 crores at 1950/51 prices ; (2) savings available for net investment of about Rs. 450 crores or 5 per cent of national income ; and (3) total population of about 351 million. The basic assumptions, on which the calculations of the Planning Commission were made, were : (1) an average annual rate of growth of population of 1.25 per cent for the entire period of the projection ; (2) a capital-output ratio for the whole economy and for he entire period of the projection of 3 : 1, with a time lag of two years between the increase in investment and the increase in output ; [56] (3) a marginal savings rate of 20 per cent from 1951/52 to 1955/56 and of 50 per cent from 1956/57 onwards, i.e., a stepping up of the domestic savings rate from 5 per cent in 1950/51 to 6.75 per cent in 1955/56, to about 11 per cent in 1960/61 and to 20 percent by 1968/69 ; (4) after 1968/69, the domestic savings rate was expected to remain at the 20 per cent level ; and (5) internal resources would be supplemented to some extent by external resources during the period 1951/52 — 1955/56, thereafter domestic savings at the indicated rates could provide the total investment projected. [57]

On these assumptions, national income in 1950/51 was expected to be doubled by 1971/72, i.e., in about 21 years ; and per capital income by 1977/78, i.e., in about 27 years — both at constant prices. This projection also implied that India's economic development would be self-sustained after 1955/56

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(56) Besides, the fact that the usefulness of such aggregate ratio is very limited indeed, the Indian ratio was very unrealistic even for the first five years of the projection as will be clearly seen in this Chapter, Section II, and in Chapters VI and VII below. It seems that the Indian planners had merely used the actual average ratio of 1949 and 1950. For supporting evidence, see the relevant data in Chapter III ; and also Planning Commission, **The First Five Year Plan, Op. cit.,** pp. 14-15. In fact, for the pre-planning period 1946-50, abnormal as it was, no direct relation between investment and output can on average be detected, with annual average decrease of naional income of 0.15 per cent and net investment rate of 5 per cent. See Chapter III above.

(57) See Planning Commission, **The First Five Year Plan, Op. cit.,** pp. 20-23.

with all the required financial resources provided from domestic sources.

The unrealistic and over-ambitious nature of these assumptions need no emphasis, a fact which will be abundantly clear from the evidence provided in this chapter, Section II, and Chapters VI and VII. The Planning Commission itself emphasized the illustrative and tentative nature of this projection and the suggestive character of the calculations based upon it. (58) With fixed rate of population growth, fixed capital-output ratio and arbitrary domestic savings rates, for the entire period of the projection, the calculations of various variables included should be interpreted with great caution.

According to these assumptions, the national income of India by the end of the First Five Year Plan was expected to rise from Rs. 9,000 crores in 1950/51 to Rs. 10,000 crores in 1955/56 at constant prices, i.e., by about 11 per cent. This increase was expected to be brought about by a total net investment of about Rs. 3,550 crores during the five-year period. This total investment was expected to be financed partly by domestic savings, estimated to be about Rs. 2,750 crores, (59) and partly by expected external resources of about Rs. 800 crores. These external resources consisted of Rs. 290 crores as withdrawal from Sterling balances, which was a public sector financial source, and Rs. 510 crores as foreign assistance. (60)

Public sector share in total net investment was estimated to be about Rs. 1,669 crores (61) or about 47 per cent. The rest (53 per cent) was expected to be carried out by the private sector. On the other hand, the contribution of the public sector to the finance of this total planned investment was expected to be about Rs. 886 crores or about 25 per cent of the total financial resources required. These public resources con-

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(58) See Planning Commission, **The First Five Year Plan, Op. cit.**, p. 21.
(59) Total net investment and domestic savings were expected to be Rs. 3,500 - 3,600 crores and Rs. 2,700 - 2,800 crores, respectively, the averages of which are used here. See Planning Commission, **The First Five Year Plan, Op. cit.**, p. 108.
(60) Planning Commission, **The First Five Year Plan, Op. cit.**, pp. 61 and 108.
(61) Planning Commission, **The First Five Year Plan, Op. cit.**, p. 48.

sisted of expected budgetary resources of Rs. 596 crores [62] and of expected withdrawal from Sterling balances of Rs. 290 crores, as just mentioned. With external assistance of about Rs. 510 crores or about 14 per cent, the contribution of the private sector was expected to be about Rs. 2,154 crores, or 61 per cent of the total. [63]

After these aggregate national calculations, the Plan was entirely **a public sector plan.** [64] The size of this Plan was given not as net investment, but investment gross of certain « necessary » operating expenses of a current account nature. This planned gross investment was called by the Commission the « development outlay » of the Plan. This outlay was put as Rs. 2,069 crores for the five-year period, out of which Rs. 400 crores or 19.3 per cent was estimated as expected expenditure on revenue account. [65] This outlay was an enlargement of that proposed by the Draft Outline of Rs. 1,793 crores. This enlargement was in form of additional projects in agriculture, irrigation, power, transport, industry and social services. [66] These changes were explained, in the Commission's words, ". . . . by the attempt to strengthen the Plan with due regard to the resources which could be foreseen, at those points at which it was felt that the earlier proposals fell short of the needs of the country ». [67] Later (in 1953/54) the Plan was further expanded and various adjustments were made « mainly with a view to stepping up the aggregate outlay from the levels

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(62) This net total is obtained from the gross total of Rs. 738 crores by deducting 19.3 per cent (the percentage used by the Commission in calculating gross Investment of the public sector, see this Chapter below) as current expenses. See Planning Commission, **The First Five Year Plan, Op. cit.,** pp. 48-78 and 102-08 ; and **Review of the First Five Year Plan, Op. cit.,** p. 23.

(63) Private sector data on investment and savings are obtained as residuals. For comparable data, See Malenbaum, **Prospects for Indian Development, Op. cit.,** p. 93.

(64) Except a brief reference to an independent private sector industrial programme, some general policy measures to encourage private enterprise, and an overall assessment of the national effort during the period of the Plan in terms of expected financial and physical national output by industrial origin, as will be briefly discussed below.

(65) Planning commission **The First Five Year Plan, Op. cit.,** p. 48.

(66) For more information, see Planning Commission, **The First Five Year Plan, Op. cit.,** pp. 3-4 ; and also Table V.5 in this Chapter.

(67) See Planning Commission, **The First Five Year Plan, Op. cit.,** p. 3.

in the early years and to provide more employment opportunities." [68] These additions were partly to meet the worsening situation of employment in the urban areas and partly to substitute for schemes in respect of which progress was slow for various reasons. [69] These adjustments raised the size of the Plan to Rs. 2,378 crores.

Table V.5 presents **the patterns of outlay allocation** between the main heads of development according to the Draft Outline, the Plan as finally formulated, and the revised estimates.

TABLE V.5 :

DISTRIBUTION OF PLAN OUTLAY, BY INDUSTRIAL ORIGIN

(In Rs. Crores)

Industrial Origin	Draft Outline		Plan		Revised Estimates	
	Outlay	%	Outlay	%	Outlay	%
1. Agriculture and Comm. Develop.	192	12.8	361	17.5	354	15.0
2. Irrigation			168	8.1	213	9.0
3. Multi-purpose Irrigation and Power Projects	450	30.2	266	12.9	256	11.0
4. Power			127	6.1	179	7.0
5. Industry	101	6.7	173	8.4	188	8.0
6. Trans. and Comm.	388	26.1	497	24.0	570	24.0
7. Rehabilitation	79	5.3	85	4.1	136	6.0
8. Other Services	283	18.9	392	18.9	482	20.0
Total Outlay	1,493	100.0	2,069	100.0	2,378	100.0

Notes: i — The Draft Outline also included a supplementary programme of Rs. 390 crores, as mentioned above, to be undertaken if conditions were favourable and external assistance were available. The allocation of this part of the outlay of the Draft between various activities is not available.

ii — Indusry includes mining, and other services includes housing.

Sources : Planning Commission, **The First Five Year Plan, Op. cit.,** pp. 2-7 and 70, and Review of **The First Five Year Plan, Op. cit.,** pp. 19-21 and Ministry of Finance, **India : Pocket Book of Economic Information, 1964,** (New Delhi, 1964), pp. 205-06.

(68) See Planning Commission, **Review of The First Five Year Plan, Op. cit,** p. 18.

(69) See Planning Commission, **Review of The First Five Year Plan, Op. cit.,** pp. 10 and 18, and **Second Five Year Plan, Op. cit.,** pp. 109-11 ; and this Chapter below.

From this table, one can see that the three patterns of outlay allocation are strikingly of a similar order which reveals the basic objectives of the Plan, its strategy and its pattern of priorities. The Plan gave topmost priority to agriculture, irrigation and power (44.6 per cent). Next came transport and communications (24 per cent) ; followed by other public services including housing, education, health, rehabilitation and other social services (23 per cent) ; and then industry and mining (8.4 per cent). This pattern of priorities was necessary, as the Commission put it, « . . . to strengthen the economy as the base », and to help meeting some of the severe shortages, especially in foodgrains and fibres. (70) Without a substantial increase in the production of food and raw materials needed for industry, it would be impossible, as the Commission strongly argued, to sustain a higher tempo of industrial development. The development of power and transport facilities was emphasized in the Plan as essential to the needs of development in both agriculture and industry. Apart from some emphasis on the development of « Key industries » such as iron and steel, heavy chemicals, machine-tools and the like, industrial expansion was largely left for private initiative and resources. In the field of social services, the needs were so large that what could be achieved through the planned investment (though it was about threetimes that allocated to industry and mining) was very limited. However, according to the Commission, the provisions for the community development programmes were designed, among other things (see this Chapter below), to inspire the community in supplementing the government efforts in this important field. (71)

As for the selection of the projects embodies in the Plan, there is virtually no direct reference in the Plan document to the criteria applied in this respect. However, it seems that the

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(70) Planning Commission, **The First Five Year Plan, Op. cit.,** p. 44.
(71) For detailed information on various development activities embodied in the Plan, project-wise, see Planning Commission, **The First Five Year Plan, Op. cit.,** pp. 77-86 and 153-660.

first criterion was to complete the projects which were already in progress at the beginning of the Plan. For the new projects, criteria such as contribution to national production with a view to ease the existing shortages in food and raw materials, possible employment opportunities created, and contribution to the country's foreign exchange resources, were probably among the factors considered in the selection of projects of a short-term nature. As for the long-term projects such as power, large irrigation works and iron and steel, the basic criterion seemed to be the «strengthening of the economy at the base» for further development. As in the Egyptian case, these are admittedly very general and vague criteria. But, one may add that at this stage, as mentioned in Chapter II, the needs and priorities of development were so obvious that relevant projects did not require elaborate devices to be signled out.

From the pattern of priorities depicted above, one can see that the planned outlay was allocated, as in the Egyptian case discussed in this section above, to projects in fields of traditional interest to the government. These projects were planned either wtih a short-term view to meeting some existing or potential shortages in some « essential » goods and services, or with a long-term objective of strengthening the infra-structure of the economy for further development. Examples of the first category were schemes for the increased use of improved seeds and manures and fertilizers, minor irrigation works, development programme for cottage and small-scale industries, projects for expanding power and transport facilities, etc. Projects of the second category were land reclamation, multi-purpose irrigation and power, transport, iron and steel, etc.

To finance the outlay of the Plan, the Commission estimated the budgetary resources likely to be available to the government over the period of the Plan in form of savings from current revenues and from the earnings of State enterprises after meeting their non-developmental expenditures at Rs. 738 crores. Then, it estimated expected private savings that public sector can draw upon through loans, small savings, deposits and

other miscellaneous channels, at Rs. 520 crores. These two major sources were expected to meet only about 60.9 per cent of the planned outlay.

The Commission suggested a deficit financing of about Rs. 290 crores. This was regarded as «the safe upper limit to deficit financing», in view of the expected releases of equal amount from India's Sterling balances.[72] The external assistance in form of loans and grants already received for financing the Plan amounted to Rs. 156 crores. There was still left a gap of Rs. 365 crores which, according to the Commission. could only be met either from further external assistance, or, in the absence of it, by additional measures of taxation, and domestic borrowing or by further deficit financing. However. the Commission seeemd to prefer meeting this gap from external assistance, a fact which was obvious from the Commission's review of the expected external resources for the economy as a whole during the period of the Plan, as discussed in this Section above. The Ministry of Finance apparently held this view as it put the planned external assistance at Rs. 521 crores for the Plan.[73]

These various sources and their expected contributions to the total financial resources required for the Plan are summarized in Table V.6.

This planned pattern of finance in the Indian public sector is strikingly similar to that in the Egyptian, during the same period, as shown in Table V.3 above. In both cases, budgetary surpluses were expected to be the largest source of finance during 1951-56, followed by external assistance. The relative shares of these two sources in total financial resources required were 27.5 per cent and 25.1 per cent, respectively in the Indian case ; and 27.6 per cent and 22.1 per cent, respectively, in the Egyptian. However, the share of other public savings was much higher in

(72) Planning Commission, **The First Five Year Plan, Op. cit.,** pp. 46 and 61-62.
(73) See Sources of Table V.6.

TABLE V.6.

FINANCING PLAN OUTLAY

(In Rs. Crores)

Source	Expected Financial Resources	
	Total	%
1. Public Sector Savings		
i — Surplus from Current Revenue	568	27.5
ii — Scrplus from Railways	170	8.2
2. Domestic Borrowings		
i — Public Loans	115	5.6
ii — Small savings	225	10.9
iii — Unfunded Debt & Miscellaneous Capital Receipts	180	8.7
3. Deficit Financing	290	14.0
4. External Assistance	521	25.1
Total	2,069	100.0

Sources : Planning Commission, **The First Five Year Plan, Op. cit.**, pp. 46, 55-56 and 61-62, and **Review of the First Year Plan, Op. cit.**, p. 23; and Ministry of Finance, **India : Pocket Book of Economic Information, 1964, Op. cit.**, p. 207.

the Egyptian case than in the Indian, being about 25.4 per cent in the former and only 8.2 per cent in the latter. On the other hand, the share of domestic borrowings was much higher in the Indian case (25.2 per cent) than in the Egyptian (15.3 per cent). Though in both cases a kind of deficit financing was planned (of about 14 per cent in the Indian case and 9.6 per cent in the Egyptian), the two patterns of finance were on the whole modest as well as cautious.

As in the Egyptian case, **the Indian government attempted to help and encourage the private sector** to work along the

developmental lines aimed at. In addition to the public sector Plan just outlines the Planning Commission worked out detailed programmes for 42 organized industries in close consultation with the representatives of the industries concerned, as mentioned above. These programmes were formulated in the light of a general order of priorities in the industrial field. The broad lines of this order of priorities were : (1) fuller utilization of existing capacity in producer goods industries like jute and ply-wood ; and consumer goods industries like cotton textiles, sugar, soap, vanaspati (hydrogenated vegetable oil), paints and varnishes ; (2) expansion of capacity in capital and producer goods industries like iron and steel, aluminium, cement, fertilizers, heavy chemicals, machine tools, etc. ; (3) completion of industrial units on which a part of the capital expenditure had already been incurred ; and (4) establishment of new plants which would lend strength to the industrial structure by rectifying, as far as resources permitted, the existing difficulties and drawbacks, e.g., manufacture of sulphur from gypsum, chemical pulp for rayon, etc. [74]

The total capital investment necessary for industrial expansion in the private sector was estimated at Rs. 233 crores, of which about 80 per cent would be in respect of capital goods and producer goods industries. In addition, expenditure on replacement and modernisation was expected to amount to about Rs. 150 crores. [75] The allocation of this volume of investment, together with the detailed targets of this programme (industry-wise), is presented in Table V-A-9 in Appendix A, below.

Furthermore, the Industries Development and Regulation Act of 1951 was issued to enable the government to implement its policy for the development and regulation of industries along the lines suggested by the Draft Outline mainly through the

(74) Planning Commission, **The First Five Year Plan, Op. cit.,** pp. 425-26.
(75) Planning Commission, **The First Five Year Plan, Op. cit.,** pp. 429-33.

institution of Development Councils for organized industries, licensing, and control over capital issues. The main task of these Councils was to help their respective industries in planning, productivity and training matters. The Planning Commission also suggested tariff protection, tariff exemption on raw materials and capital goods, [76] increasing credit facilities available, supplying electricity at concessional rates, and securing the technical know-how for certain new industries by government through international organizations. [77]

The Commission emphazied the importance of the development of village, small-scale and handicraft industries particularly for increasing employment opportunities during the Plan period. In addition to the emphasis on technical improvements, financial facilities and other measures for improving efficiency in these industries, the Commission stated that « the primary objective of policy should be to provide a field within which each cottage industry may be able to organise itself.» This meant that « wherever a large-scale industry competes with a cottage industry, the appropriate course to adopt would be to try and formulate a common production programme ». [78] In preparing such a programme, according to the Commission, account would have to be taken of the factors determining the efficiency of large-scale and small-scale production, the scope for development through small-scale methods, the extent to which the social aspect has to be emphasized and the value of any particular course for increasing rural employment.

After these general factors, the Commission then suggested that the basic elements of a common production programme were : « (1) reservation of spheres of production, (2) non-

(76) However, the Commission did not specify the rate of the protective tariffs suggested or the industries concerned. See Planning Commission, **The First Five Year Plan, Op. cit.**, p. 436.

(77) No details on this general suggestion were provided. For more information on the government general industrial policy for the period 1951-56, see planning Commission, **The First Five Year Plan, Op. cit.**, pp. 420-51.

(78) Planning Commission, **The First Five Year Plan, Op. cit.**, p. 317.

expansion of the capacity of a large-scale industry, (3) imposition of a cess (a production tax) on a large-scale industry, (4) arrangement for the supply of raw materials, and (5) coordination for research, training, etc. »[79] As a rule, these general principles could be applied « only after detailed study and investigation with reference to the conditions of a particular industry ».[80] The government had already set up new boards for the handloom industry and for handicrafts, levied a cess on mill-made cloth for assisting the development of **Khadi**, and reserved certain lines of production for the handloom industry.[81]

In agriculture, the Commission propesed these general measures for helping the farmers : (1) giving the ownership of land to the farmers and abolishing intermediaries between them and the government ; (2) providing them with better seeds, fertilizers, credit, extension services, etc. ; (3) encouraging co-operative organizations for financial credit, marketing of products, and collective farming (to prevent fragmentation af land holdings) ; (4) reviving the cottage industries along the lines discussed above for increasing employment opportunities in rural areas ; and (5) launching community development and national extension service programmes for dealing with local and village economic and social problems and improving the social and economic aspects of rural life. Finally, regarding the future of land ownership and cultivation as « the most fundamental issue in national development », the Commission stated the main elements of its suggested land policy as follows : (1) the fixation of an upper limit to land holdings which was to be done by each State according to its own agrarian history and its present problems ; (2) provision of facilities to large owners who cultivate themselves ; (3) enactment of legislation to maintain cultiva-

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(79) Planning Commission, **The First Five Year Plan, Op. cit.,** p. 318.
(80) Planning Commission, **The First Five Year Plan, Op. cit.,** p. 318.
(81) No further specification of these reserved lines or information on the rate of and expected revenue from this tax is provided. See Planning Commission, **The First Five Year Plan, Op. cit.,** pp. 81-82 and 316-33.

tion at a «certain level of efficiency» ; and (4) the setting up of a Land Reforms Organization which would be concerned with the evaluation of land programmes, investigations into land problems, study of the experience of co-operative farming, collection of data concerning the holding and cultivation of land, etc.[82]

In appraising the expected results of the Plan, the development programme in the public sector was not taken by itself. According to the Commission, this programme was based on an appraisal of the needs of the economy as a whole and was related to an assessment of the efforts that were likely to be forthcoming from the private sector in the light of the encouraging policy measures, briefly mentioned above. The Commission viewed the Plan within a wider setting by trying to forecast roughly the likely dimensions of national output in both physical and financial terms by industrial origin, by the end of the Plan period.

Physically, the Commission estimated the effects of the national developmental efforts during the Plan period in terms of certain select targets and indices of production to be achieved by 1955/56. These targets and indices are shown in Table V-A-10 in Appendix A below. The methods of working out these estimates have not been revealed by the Commission. Nor have the roles of various implementing organs in achieving these targets been specified. These targets and expected indices are going to be evaluated against the actual achievements in Chapter VII below.

Financially, on the basis of an estimate of national income by industrial origin in the base year (1950/51) and in view of the targets and expected indices of production just mentioned, the Commission worked out the likely relative shares of various sectors of the economy in the planned national income in the

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(82) For more detailed but unquantitative information on these agricultural policy measures, sed Planning Commission, **The First Five Year Plan, Op. cit.**, pp. 153-315

end year of the Plan (1955/56). Again, the Commission did not spell out how this was done. In accordance with its national projection, discussed above, the Commission envisaged that national income was expected to increase in 1955/56 to 111.5 per cent of the 1950/51 level, at constant prices. This was a very modest target, particularly if one takes into consideration the growth of population during the period. (83)

The conservative nature of this estimate was stressed by the Commission itself. It stated that «...... this estimate of the increase in national income in the Plan period does not take fully into account the possible increases in income from some of the schemes like the community development programme which figure in the Plan.» The Commission then continued, «direct application of unutilized resources and concentrated efforts for increasing productivity may in specific areas raise incomes by 25 per cent or more, but in what manner this will come about or how widespread such increases will be cannot be precisely foreseen at this stage.» (84)

Table V.7 below presents the anticipated increases in national income by industrial origin. From the data of this table, one can see that the largest addition to national income was expected to come from agriculture. However, in terms of percentage sectoral changes by the end of the Plan period, the greatest improvement was likely to be in mining and manufacturing. With respect to the overall picture, while trade and services were not expected to expand as rapidly as national income, agriculture and industry were expected to increase at greater rates.

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(83) This was the only period of the long-term projection, discussed above, that was very much underestimated. See this Chapter above, and Chapter VII below.
(84) See Planning Commission, **The First Five Year Plan, Op. cit.,** p. 105.

TABLE V.7

PLANNED CHANGES IN NATIONAL INCOME, 1951–1956, BY INDUSTRIAL ORIGIN

(In Percentages)

Industrial Origin	Sectoral Composition, 1950/51 = 100		% Sectoral Change over the Plan Period	Sectoral Contribution to Total Change
	1950/51 (Actual)	1955/56 (Planned)		
1. Agriculture	47.5	54.1	14.0	57.5
2. Mining & Manuf.	17.2	20.3	18.0	27.0
3. Trade	19.5	20.8	7.8	11.2
4. Services	15.8	16.3	3.2	4.3
Total	100.0	111.5	11.5	100.0

Notes : i — Item (2) includes village and small industries.
ii — Item (3) includes transport, communications and banking.
iii — Item (3) includes professions and liberal arts, government administration, domestic service and house property.

Sources : Planning Commission, **The First Five Year Plan, Op. cit.**, p. 102 ; and W. Malenbaum, **Prospects for Indian Development, Op. cit.**, p. 70.

With respect to the employment question, the Commission emphasized that the data available would only permit broad judgments. It then estimated the expected employment opportunities to be about eight million during the Plan period. The details of this employment target by industrial origin are shown in Table V. 8 below. In 1953, the employment situation noticeably worsened especially in the urban areas. (85) This led to the upward revision of the Plan outlay from Rs. 2,069 crores to about Rs. 2,378 crores, as mentioned above.

(85) For information on the actual employment situation during 1951-56 and an assessment of the employment target against actual employment increase, see this Chapter, Section II, and Chapter VII below.

TABLE V. 8

ESTIMATED OF PLANNED ADDITIONAL EMPLOYMENT DURING THE PLAN PERIOD, BY INDUSTRIAL ORIGIN

(In Mns.)

Industrial Origin	Planned Additional Employment
1. Agriculture	2.90
2. Major Irrig. & Power Projects	1.25
3. Building, Construction & Roads	1.30
4. Cottage Industries	2.00
5. Organized Industries (including small-scale industries)	0.40
6. Tertiary Sector & Local Works (including transport, storage, banking and other kinds of services)	...
Total	7.85

Notes: i — (. . .) = not estimated.

ii — Item (I) includes additional area irrigated, repairing tanks and land reclamation schemes.

iii — Cottage industries (item 4) were also expected to provide «fuller employment to about «3.6 million» under-employed persons». See Source.

Source: Planning Commission, **The First Five Year Plan, Op. cit.,** pp. 654-55.

From the foregoing discussion on planning in Egypt and India during this phase, one finds striking similarities between the two cases particularly with respect to the basic approach to economic development, the short and long-term objectives aimed at, the planning startegy adopted, the detailed pattern of priorities used, the pattern of finance envisaged, the methods of plan formulation applied, the activities planned, and the criteria used for the selection of individual projects. Differences in details naturally existed, as mentioned above, but the main features of planning in the two countries during this phase were very much the same.

In both cases, this phase was basically a project-planning for public sector's development activities, which consisted largely of projects already in progress, together with a very general view on how the economy as a whole would behave during the five-year period, 1951–1956. With a basic strategy of easing short-term difficulties and of strengthening the economy at base for further development, infrastructural fields were the main planned activity. Agriculture (including irrigation and drainage), was given the highest priority. Next came transport and communications, and power ; then followed by other public services ; and finally industry and mining. The development of industry and mining was left largely to private enterprise. In general, private sector was entrusted with a sizable responsibility in the development process during this phase, and was assisted by encouraging governmental policy measures. The individual projects embodied in the development programmes, outlined above, were studied in some detail, particularly with respect to their technical and financial feasibilities. The means of financing these projects were cautious and on the whole sound, with budgetary resources and other public savings as the major source. In sum ,planning during this phase was partial, modest and indicative.

II — THE SECOND PHASE

Motivated by the experience gained during the first phase, the Egyptian and the Indian planners formulated more systematic and consistent development programmes for 1956/57-1960/61. During this phase, planning may be described as methodologically superior in comparison with that of the first phase. However, as will be seen below, planning in the Egyptian case (though improving) seemed to be still inferior in techniques compared with that in the Indian.

The basic approach during this phase was to continue the task begun in the first phase, namely, strengthening the foundations of the two economies for further economic development.

In this respect, the Indian planners were "excessively » bold and over-ambitious. In contrast, the Egyptian planners were « unduly » cautious or even pessimistic. In both cases, planning was divorced from the economic realities of the two countries. The inevitable result was a gross overestimation of the development potential of the economy during this phase in the Indian case, and a gross underestimation, in the Egyptian, (see Chapter VII below).

In both cases, the main strategy was conceived with special reference to the task of developing the industrial sector. Accordingly, more emphasis was put on industrialization during this phase in comparison with that in the first. The « superstructure » of industry had to be built up and strengthened. However, « excessive » emphasis was laid on the development of basic and heavy industries during this five-year period in the Indian case, relative to the capabilities and needs of the economy. It was also excessive in comparison with that postulated in the Egyptian case, as detailed below.

This phase also witnessed the official socialist slogans. The question of whether this was a reaction to internal developments and circumstances, or a deliberate ideological commitment, or a sheer coincidence has been dealt with in some detail in Chapter IV. More clarification of this important question will be provided through the following discussion on the outline and strategy of Planning in Egypt and India during this phase, in this section, and during the third and fourth phases, in the next Chapter.

In the Egyptian case, this phase may be described as the sectoral-planning phase. National integral programmes on sectoral basis were formulated for the main economic activities in the country, namely, industry, agriculture and services. Rough planning exercises for the economy as a whole were also attempted for 1956/57–1960/61 as well as for long-term perspectives of twenty years. The annual State budget remained the main planning device in so far as it helped the planners in the

task of « filling-in » the public sector's part of the sectoral programmes, as will be mentioned below.

Individual Ministries remained the main planning organs. The Ministry of Industry was responsible for «national» industrial planning, the Ministry of Agriculture, for «national» agricultural planning, and the Ministries of services, for «national» services planning. In March, 1957, the National Planning Committee which was established (in 1955) for co-ordinating the work of the PCDNP and the PCPS, as mentioned in Section I, was replaced by two planning bodies. The first was the Supreme Council of National Planning which was empowered to set the economic and social development objectives and to approve the development plans, and to follow-up their implementation. (86) The second was the National Planning Commission which was responsible for examining the country's resources and potentialities ; preparing accordingly long-term, medium-term and annual economic and social national development plans ; supervising plan implementation ; and preparing periodical progress reports on the implementation process for the Supreme Council's consideration. At the same time, to facilitate this task and to avoid duplication of work on planning, the PCDNP and the PCPS were amalgamated with the National Planning Commission.(87)

However, this elaborate planning machinery was fully engaged in detailed studies of various aspects of the economic and social life of the country in order to formulate a « realistic » and " workable » comprehensive national plan for development. (88) Since the preparation of such a plan was expected to

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(86) For information on the particulars of this Council and its place in Egyptian planning organization, see Chart VI-C-1, in Appendix C below ; Farag, **Op. cit.**, p. 10 ; and the Technical Bureau, **Op. cit.**, pp. 4 and 76-77.

(87) For detailed information on this Commission and its tasks, see Farag, **Op. cit.**, pp. 10-38 ; and the Technical Bureau, **Op. cit.**, pp. 4-14 and 38-48. See also Chart VI-C-1, in Appendix C below.

(88) The final outcome of this work is the subject matter of the third phase, discussed in Section I, Chapter VI below.

take some time (and in fact, it did : from 1957–1960), planning for this phase was left largely to the individual Ministries concerned as mentioned above. During the formulation of their respective development programmes, these Ministries were however in close consultation with each other (directly or through the Council of Ministers) as well as with the existing national planning bodies. (89)

With respect to medium and long-term aggregate national projections concerning this phase, there are two sets of estimates, namely, those of the Ministry of Industry and those of the Planning Commission.

The Ministry of Industry attempted to form a rough idea about the possible developmental path that the economy as a whole was expected to take during : (1) a perspective of twenty years, 1956/57–1975/76 ; and (2) the first five-year period of this perspective, 1956/57-1960/61. (90) Unfortunately, the picture emerged was unrealistic, confusing and faulty. According to the Ministry, **the basic objective of the perspective** was to double per capita real income of the base year (1955/56) by the end year (1975/76). The Ministry then estimated national income in 1955/56 at L.E. 900 million at current market prices. So, « taking into consideration that population will increase during that period from 23.5 millions to 32 millions, the total national income should then rise to about 2,470 million (Egyptian) pounds, so that the individual's share may reach 77 (Egyptian) pounds which is double the present level. » (91) at constant prices.

As «the rate of increase in the national income during the first years of the plan must necessarily be much slower than in the later stages », the Ministry therefore estimated that «... the national income would increase by 25% during the first ten years

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(89) See **Farag, Op. cit.,** pp. 8-9 ; and PCDNP, **Op. cit.**
(90) Ministry of Industry, **Industry after the Revolution and the Five Year Plan, Op. cit.,** pp. 95-178.
(91) Ministry of Industry, **Industry, after the Revolution. . . ., Op. cit.,** p. 97.

whereas the (total) increase (aimed at) would be achieved during the last ten years. » [92] **For the first five-year period (1956/57–1960/61),** the Ministry stated that « ... the level of national income which we would desire to achieve in five years time is L.E. 1,000 mllion. » [93] This means that the planned increase in national income by the end of the five years was expected to be L.E. 100 million or 11 per cent of the level of national income in 1955/56, at constant prices.

The Ministry then estimated the share of industry in national income in 1955/56 as equal to about L.E. 100 million or about 11 per cent at current market prices. The objective of the Ministry was to raise this share « to some 184 million (Egyptian) pounds » or 19 per cent of the expected national income at constant prices, by the end of the five-year period. This means that the planned increase in national income of L.E. 100 million in 1960/61 was expected to be shared among the various sectors of the economy as follows : (1) industry, L.E. 84 million or 84 per cent of the total increase ; and (2) all other sectors, L.E. 16 million or 16 per cent. Thus, according to the Ministry, income from other sectors of the economy was expected to increase over the wholee five-year period by only 2 per cent, with an annual average increase of a mere 0.4 per cent. [94]

Apart from detailing the industrial part of the five-year plan, as will be specified below, no information was provided as to how the national targets were worked out and as to how they were going to be achieved. No mention was made of any pattern of investment allocation or even of the total investment needed. Nor were there any reference to the order of magnitude of national savings expected and to how such savings were going to be mobilized. Furthermore, the population projection was based on an assumption which had no bearing on the actual

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(92) Ministry of Industry, **Op. cit.,** pp. 97 and 99.
(93) Ministry of Industry, **Op. cit.,** p. 97.
(94) See Ministry of Industry, **Op. cit.,** p. 101.

demographic situation, namely, that the annual average rate of population growth was expected to be about 1.8 per cent. In fact, the annual average rate of population growth was over 2 per cent even before the 1950's, (see Chapter III). There was also no supporting evidence that it was going to decline during the twenty-year period. More serious still were the arbitrary phasing of the perspective, the gross underestimation of the development potential of the economy during the first five-year period, and the mistaken estimation of the sectoral contributions to the expected increase in national income during this period.

In short, the Ministry's national planning exercises amounted to sheer speculations. The perspective was very ambitiously targeted and very poorly phased. It was based on questionable demographic assumptions and lacking altogether essential data concerning investment, savings, etc. The first five-year plan of this perspective was too modest, badly biased against other sectors, and over-emphasizing the role of industry in national development. During this five-year period, the Ministry pessimistically assumed (in terms of national income) a very slow rate of growth for the economy as a whole, and a virtual stagnation for all « non-industrial » sectors. At the same time, the Ministry optimistically envisaged a substantial rate of growth for the industrial sector. [95]

In contrast, **the aggregate national projections of the Planning Commission** were more refined and more realistic than those of the Ministry of Industry. These projections were rather private individual attempts [96] to formulate : (1) a perspective

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(95) According to the Ministry's data, cited in this section above, the expected annual average rate of growth for the economy was 2.2 per cent, for all « non-industrial » sectors, 0.4 per cent, and for the industrial sector, 16.8 per cent.

(96) These attempts Were made by some of the members of the newly formed Commission ; notably among them were Dr. I. Abd-El-Rahman, Mr. M. Ibrahim, Dr. N. Deif, Dr. F. Sherief and Mr. A. Abd-El-Meguid. They were made as a preliminary work for he plan formulation of the third phase, as mentioned in this Section above. See also Chapter VI.

of national economic devlopment for twenty-year period ; [97] and (2) a more detailed draft plan for the first five-year period. [98]

The period of the perspective formulated was 1958-1978.[99] The basic objective aimed at was to double the national income of the base year (1958) by the end year (1978) at constant prices. The data of the base year were estimated as : (1) national income of L.E. 1,000 million at current market prices ; (2) the share of net investment in national income of about 9.3 per cent ; (3) the share of net investment in total investment gross of replacement and depreciation of about 75 per cent ; (4) the share of gross domestic savings in national income of about 12 per cent ; and (5) a total population of about 24.4 million.

The basic assumptions and targets of the perspective were : (1) population increase of about 48.3 per cent by the end year over the level of the base year, with an annual average rate of growth of 2.2 per cent during the first two five-year periods, 2.6 per cent during the third, and 2.66 per cent during the fourth ; (2) a gradual rise in national income of 3 per cent per annum during the first five-year period, followed by 3.5 per cent, 4 per cent and 5 per cent for the next three five-year

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(97) In this respect the basic works are : N. Deif, F. Sherief and A. Abd-El-Meguid, « A Draft Outline of a Long-term Plan for the Egyptian Region, 1959-1979 », **Memo. No. 71,** the National Planning Commission, (Cairo, Nov., 1958), (in Arabic) ; A. Abd-El-Meguid, « Discussion of the objectives of the General Plan for Economic Development, 1958-1978 », **Memo No. 104,** the National Planning Commission, (Cairo, Dec., 1958), (in Arabic) ; and M. Ibrahim, « A Draft Outline of a Plan for **Economic** Development of the United Arabic Republic, (1958-1978) », **Memo. No. 75,** the National Planning Commission, (Cairo, Nov. 1958), (in Arabic).

(98) In this respect the basic works are : I. Abd-El-Rahman, « The General Picture of Development During the Five Years : 1959-1963 », **Memo No. 280,** the National Planning Commission, (Cairo, 1959), (in Arabic), and his « On the Financing of the Plan », **Memo. No. 282,** the National Planning Commission. (Cairo 1959) (in Arabic) ; and N. Deif, « Determination of Output and Investment Objectives of the First Five Year Plan and the Twenty Year Plan », **Memo. No. 124,** the National Planning Commission, (Cairo, 1959), (in Arabic).

(99) Dr. Deif and his associates were originally working on the period 1959-1979. See Deif and Others, **Op. cit.**. However, this work was revised and put in a more detailed and elaborate form by Mr. A. Abd-El-Meguid, using the same assumptions and data but only changing the period from 1959-1979 to 1958-1978. See Abd-El-Meguid, **Op. cit.** See also Ibrahim, **Op. cit.**

periods, respectively ; (3) a constant capital-output ratio of 3.5 : 1 for the whole economy and throughout the period of the perspective ; and (4) a gradual rise of gross investment as a percentage of national income from about 12 per cent in the base year to about 22 per cent in the end year, a quarter of which was expected to be for replacement and depreciation.[100]

The main targets and assumptions of this perspective in terms of national income, investment and consumption are shown in Table V.9.

TABLE V.9

EXPECTED NATIONAL INCOME, INVESTMENT AND CONSUMPTION DURING THE TWENTY YEAR PERSPECTIVE

(In L.E. Mns.)

Item	Base Year (Actual)	Targets of the Five Year Periods: I		II		III		IV	
		1st Year	5th Year	1st Year	5th Year	1st Year	5th Year	1st Year	5th Year
I — Annual Targets									
1. National income	1,000	1,030	1,159	1,200	1,377	1,432	1,675	1.759	2,138
2. Consumption	876	893	987	1,023	1,151	1,165	1,330	1,427	1,660
3. Gross Savings	124	137	172	177	226	267	345	332	478
II — Five Year Targets									
4. National Income Increase	—	159		217		298		463	
5. Net Investment	93	543		741		1,223		1,813	
6. Gross Investment	124	761		998		1,533		2,202	

Notes : i — All data are at constant prices.
ii — Items (3) and (6) include provisions for replacement and depreciation.

Sources : Deif and others **Op. cit.,** pp. 11-12 ; Abd-El-Meguid, **Op. cit.,** pp. 3-7 ; and Ibrahim, **Op. cit.,** pp. 5-17.

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(100) For details see Deif and others, **Op. cit.** ; Abd-El-Meguid, **Op. cit.** ; and Ibrahim, **Op. cit.** For a recent and more elaborate mathematical treatment of these works, see M.M. El-Imam, « Models Used in Drafting The 20-Years Plan (1959-1978) », **Memo. No. 255,** The Institute of National Planning, (Cairo, Dec., 1962), pp. 1-14.

Dr. Ibrahim Abd-El Rahman then formulated a more detailed **draft outline of the first five-year plan** of this perspective. He worked out an allocation pattern for the total gross investment expected as well as a pattern of finance of this investment, as will be mentioned below.

Though the phasing of some of the variables was by and large reasonable, there were some rather unrealistic assumptions such as a constant capital-output ratio for the whole economy and for the entire period of the perspective, the rates of capital formation postulated, etc. Also, there were virtually no reference as to how these expected investments were going to be financed. Furthermore, though the targets of the first period were more realistic than those of the first period of the Ministry of Industry's perspective, they were still rather modest if not over-cautious. These shortcomings were recognized by the farmers themselves. In fact, they were very much aware of the tentative nature of such a projection, the limitations of its assumptions and the rudimentary character of the statistics used. However, this perspective served as a rough indication of how a national objective might be achieved.

As the first period of this perspective (1958-1963) covered most of the period of this phase (1956/57-1960/61), with minor changes, its basic assumptions could be used to get a rough idea about the planners' intentions for this phase and a more realistic picture on how the economy was expected accordingly to behave during 1956/57–1960/61. Taking national income in the base year (1955/56) of about L.E. 965 million at current market prices [101] and using these assumptions, one gets a more realistic five year plan [120] than that envisaged by the Ministry of Industry, outlined above.

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(101) See United Arab Republic, Department of Statistics and Census. **Ten Years of Revolution (Statistical Atlas),** (Cairo, July, 1962), Table 9.

(102) Even this modified plan was still very much understimating the growth potential of the economy during the period under discussion, as will be clearly seen in Chapter VII below.

The main assumptions of the first five-year period of the Commission's perspective were : (1) population increase of about 11 per cent by the end year over the level of the base year, with an annual average rate of growth of 2.2 per cent ; (2) a constant rise in national income of 3 per cent per annum ; (3) a constant capital-output ratio of 3.5 : 1 for the economy as a whole ; and (4) a total net investment of about 75 per cent of total investment gross of replacement and depreciation. Accordingly, national income was expected to increase from L.E. 965 million in 1955/56 to about L.E. 1,119 million in 1960/61 at 1955/56 prices, an increase of about L.E. 154 million or about 16 per cent. With a capital-output ratio of 3.5 : 1, net investment was expected to be about L.E. 540 million. With this total net investment and the fourth assumption concerning replacement and depreciation, gross investment was expected to be about L.E. 720 million during the five-year period.

Using Abd-El-Rahman's **pattern of investment allocation** attempted for the first period of the perspective, [103] the sectoral distribution of the expected gross investment of L.E. 720 million is shown in Table V.10 below.

From the data of this table one can see that industry was given the topmost priority, (over a third of the total planned development outlay). Next came agriculture, irrigation and the High Dam ; followed by construction and residential buildings ; transport, communications and storage ; and then other services. This pattern of allocation seems to be more balanced and more realistic than that implied by the Ministry of Industry, as mentioned above. This pattern can best be seen against that suggested for the first phase, outlined in Section I. During the first phase, planning strategy was essentially based on the development of agriculture and infra-structural activities (see Tables V.2 and V.4 above). Here, the emphasis is more on industry

(103) For details on this attempt, see I. Abd-El-Rahman, « The General Picture. . . », Op. cit.; pp. 1-3.

TABLE V.10 :

ALLOCATION OF PLANNED NATIONAL GROSS INVESTMENT, BY INDUSTRIAL ORIGIN

(In L.E. Mns.)

Industrial Origin	Total	%
1. Agriculture, Irrig. & High Dam	169.2	23.5
2. Industry & Electricity	266.4	37.0
3. Cons. & Residential Buildings	129.6	18.0
4. Transport, Comm. & Storage	109.4	15.2
5. Public Utilities	31.0	4.3
6. Other Services (including Health & Educ.)	14.4	2.0
Total	720.0	100.0

Note : The percentage distribution is Abd-El-Rahman's and is used to get the absolute-value distribution.

Source : I. Abd-El-Rahman, « The General Picture . . . . », **Op. cit.**, p. 2.

than agriculture. This phase may be considered as « industry and infra-structural activities» phase. Nevertheless, agriculture still has an important place in the over-all strategy, only second to industry.

The case for industrial development within a general development strategy for all sectors of the economy needs no emphasis. (104) This is particularly so in the Egyptian situation. Given the economic conditions of the country, more diversification of economic activities through industrialization was obviously needed. (105) For the Egyptian planners import-substitution and self-sufficiency were the main criteria behind stressing the importance of industrialization. (106) Here, the Suez crisis

(104) For more information on this point, see Chapters I and II.
(105) See Chapter III, Section II.
(106) See I. Abd-El-Rahman, « The General Picture. . . », **Op. cit.** ; Deif and others, **Op. cit.** ; and Ministry of Industry, **Industry after the Revolution. . .'», Op. cit.**

may have left its mark. But more basically the planners may have acted on the view that : (1) to achieve a self-sustained and more balanced developmental path for the Egyptian economy, industrial development must be stressed from the start, particularly if one bears in mind that agriculture has virtually reached its full (physical) capacity ; (2) if there is any hope to significantly increase agricultural production within medium-term plans, it would be through increasing the yields from the land under cultivation which in turn depends, among other things, on industrial expansion in general and certain industrial lines in particular, e.g., fertilizers, insecticides, agricultural implements, etc. ; and (3) Egypt as an underdeveloped single-commodity exporter should diversify her production structure in order to lessen the sensitive nature of her economy to fluctuations in the international market and consequently in her foreign trade as well as to changes in her agricultural production due to unfavourable crop conditions. The pattern of industrial development envisaged during this phase was worked out by the Ministry of Industry, as will be discussed in this Section.

According to Abd-El-Rahman's work, the share of the public sector in this planned development outlay was expected to be about 58 per cent. [107] The rest was expected to be undertaken by the private sector. Compared with the percentage distribution of the planned development outlay of the first phase (47 per cent for the public sector and 53 per cent for the private sector), this distribution indicates the increasing emphasis on the role of the government in the development process. Granted that

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(107) See I. Abd-El-Rahman, « The General Picture . . . », **Op. cit.,** p. 2. This relative share is in fact confirmed by the data of the annual State budgets on planned governmental development expendiure. Taking the first four years of this phase (as the fifth year, 1960/61, was more influenced by planning activities of the third phase, as will be discussed in Chapter VI ; and so was the State budget of that year), total planned governmental development outlay was estimated at L.E. 326.1 million at 1955/56 prices for the years 1956/57-1959/60, which was about 57 per cent of the four-fifths of the total planned national development outlay of L.E. 720 million (i.e. L.E. 576 million). See National Bank of Egypt, **The Economy of the United Arab Republic. . ., Op. cit.,** pp. 50 and 52.

this role should in principle increase to a « certain extent », [108] this relative distribution seems on the whole reasonable, particularly if one considers that most of the share of the public sector (over 70 per cent) [109] was allotted for infra-structural and public services activities, such as irrigation, drainage, and land reclamaton ; electricity ; transport, communications and storage ; and other services including housing, health and education. Certainly, this distribution is much more reasonable than those envisaged for the third and fourth phases, as will be discussed in Chapters VI and VII.

Using **the pattern of finance** suggested by Professor Abd-El-Rahman, [110] the expected contributions of various sources to the financing of the planned development outlay for this phase are presented in Table V.11 below.

TABLE V.11

FINANCING PLANNED NATIONAL GROSS INVESTMENT

(In L.E. Mns.)

Source	Total	%
1. Gov. Savings (inc. Suez Canal)	235	32.6
2. Profits and Savings in Bus. Sector	336	46.7
3. Savings in Family Sector	99	13.7
4. Balance of Capital Payments	20	2.8
5. Additional External Assistance	30	4.2
Total	720	100.0

Notes : i — The percentage distribution is Abd-El-Rahman's and is used to get the absolute-value distribution.
ii — Item (4) is the net-external assistance originally anticipated and item (5) is obtained as a residual.

Sources : I. Abd-El-Rahman, « The General Picture. . . », **Op. cit.**, pp. 1-3 ; and his, « On the Financing of the Plan », pp. 7-8.

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(108) For more information on this point, see Chapters I, II and III.

(109) See National Bank of Egypt, **The Economy of the United Arab Republic. . .**, **Op. cit.**, pp. 48-49 and 56-57.

(110) Professor Abd-El-Rahman emphasized the very conservative nature of his financial exercise. For more details and information on the data used, see I. Abd-El-Rahman, « The General Picture. . . », **Op. cit.**, p. 3 ; and his « On the Financing of the Plan », **Op. cit.**, pp. 7-8.

This pattern of finance seems to be by and large reasonable, if not over-cautious. However, the foreign assistance component is relatively small and appears to be very much under-estimated (see Chapter VII below). From the data of this table, public sector savings which included budgetary surpluses, profits of public enterprises and other miscellaneous capital receipts were expected to be substantially larger than those planned for the first phase (see Table V.3 above). However, as in the first phase, these savings were expected to cover only part (about 56 per cent) of the total development outlay envisaged for the public sector during this phase, mentioned above. The rest was to be met by domestic borrowings and foreign assistance within the limits of expected total financial resources, specified in Table V.11.

The industrial part of the national development outlay was planned in detail (project-wise) by the Ministry of industry. The industrial programme formulated was called by the Ministry "the First Five Year Industrial Plan ». This part of the Ministry's planning work was more realistically and more carefully formulated, compared with its perspective and its national five-year plan discussed above.

In outlining its policy, the Ministry declared that « an industrial policy planned on a sound basis should stem from our actual needs, and consideration must be given to the factors that affect our economy. » « In Egypt, » the Ministry continued, « we are still importing the greater part of our manufactured needs ...... At present most of our exports are limited to some agricultural products such as cotton and onions, and as a rule there is always an adverse balance of trade ». (111) On the other hand, the Ministry argued that in order to implement any programme of economic development, « imports must necessarily increase » as a consequence of the import of capital goods required. (112)

(111) Ministry of Industry, **Industry after the Revolution. . . . , Op. cit,** p. 90.
(112) Ministry of Industry, **Industry after the Revolution. . . . , Op. cit,** p. 90.

Accordingly, the Ministry singled out three fundamental principles as the bases for its industrial policy. These principles were : « (1) The achievement of self-sufficiency in all our needs by replacing imported products ... with those produced locally ; (2) Expansion in the industries which may find export markets and for which Egyptian conditions are favourable ; [113] and (3) « ...... **realising a balance between the development of basic industries and the development of consumer goods industries ».** [114] So, it seems that the basic principles of the Ministry's industrial policy were import-substitution, promotion of export industries and a more balanced and diversified industrial development.

Having defined its policy in the broad terms, the Ministry embarked on the formulation of its programme in detail. Projects were chosen according to a certain pattern of priorities. According to the Ministry, the criteria used for the selection of individual projects were : « (1) the extent of each project's contribution in the national income ; (2) the local financial resources needed for the project ; (3) the amount of foreign currency needed for the project ; (4) the average estimated net profit of the project ; (5) the average productive capacity that may be contributed by the projects producing capital goods ; (6) the possibilities of production and consumption that the project presents ; (7) the foreign currency that may be saved through the project ; (8) the period necessary for the execution of the project ; (9) the extent of the employment by the project of locally available resources, in particular unskilled labour and raw materials available in abundance, and local by- products ; and (10) strategic considerations ». [115]

It is obvious that these criteria are vague, overlapping and repetitive. Nevertheless, the Ministry claimed that « ... every

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(113) Ministry of Industry, **Industry after the Revolution. . . .**, **Op. cit,** p. 90.
(114) See United Arab Republic, Ministry of Industry, **12 years of Industrial Development in the United Arab Republic: 1952-1964,** (Cairo, 1964), p. 178, (author's italics). See also its **Industry after the Revolution . . .**, **Op. cit.**, p. 91.
(115) Ministry of Industry, **Industry after the Revolution . . .** , **Op. cit.**, p. 104,

development project in the five year plan has been closely examined in the light of the above considerations before a decision as to the degree of priority to be granted has been made.» [116] There were however three exceptions to this general rule. These were : "(1) industries under execution, as well as those for which steps had been taken for their establishment, were placed at the top of the priority list regardless of their proper order in the system of priority ; (2) development of some industries was delayed so that they would come after the industries mentioned in the program, even though their type might allow them to be of high priority ; and (3) some industries were given precedence because of their special importance whether from a strategic point of view or the economic situation in general, or from the point of view of the requirements of other industries for their products.» [117]

The size of the industrial programme was expected to be about L.E. 255 million for the period 1956/57-1960/61.[118] This programme was to be implemented in five annual stages with each stage having specific allocation pattern. Table V.12 below shows the distribution of the total outlay of the programme among the various industrial activities included, as well as among the five stages of implementation. This table also shows the allocation pattern of the share of each stage in total outlay.

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(116) Ministry of Industry, **Industry after the Revolution . . . , Op. cit.**, p. 103,

(117) Ministry of Industry, **Industry after the Revolution . . . , Op. cit.**, p. 105-06.

(118) This development outlay was derived by the Ministry from a targeted increase in industrial income of L.E. 84 million and an average capital-output ratio of 3 : 1. The Ministry however emphasized that these aggregate data were based on detailed calculation, project-wice. See Ministry of Industry, **Industry after Revolution. . . .', Op. cit.**, pp, 101 and 105-10 ; and this chapter below. There are slight discrepancies between this total outlay (L.E. 255 million), and that which should result from these aggregate data (L.E. 252 million), and the industrial share (including electricity) in the national development outlay (L.E. 266.4 million, see Table V.10 above). Bearing in mind the rough nature of planning activities during this phase, these discrepancies may be regarded as margins of errors due to omissions, rounding and aggregation ; or may be due to the activities included as in the last total.

TABLE V.12

ALLOCATION OF PLANNED INDUSTRIAL OUTLAY BY ACTIVITY AND STAGE

(In L.E. Mns.)

Activity	Stage I	II	III	IV	V	Reserve Funds	Total Outlay	%
1. Manufacturing	22.0	32.0	36.0	36.0	36.0	19.2	181.2	71.1
2. Mining	7.2	5.5	3.6	3.0	1.8	5.5	26.6	10.5
3. Petroleum	4.9	11.7	8.1	5.8	4.6	5.0	40.1	15.7
4. Training & Research	0.5	0.5	0.5	0.5	0.5	—	2.5	0.9
Total Outlay	34.6	49.7	48.2	45.3	42.9	29.7	255.0	100.0
%	13.6	19.5	18.9	17.8	16.8	11.6	100.0	

Notes: i — Neither shares of activities nor shares of stages add up to total outlay because of rounding.

ii — (—) = nothing or negligible.

Source: Ministry of Industry, **Industry after the Revolution**. . ., **Op. cit.**, p. 165.

These patterns of outlay allocation by activity and by stage were based on the detailed data of the individual projects selected for each activity. Each selected project was phased and the annual expected capital expenditure required for its implementation was accordingly estimated. Also, the expected contributions of the project to national income during construction and production were estimated over the period of the programme. Table V-A-11 in Appendix A below gives some examples of this project by project planning. However, no information was provided by the Ministry on how these calculations concerning the individual projects were worked out. (119)

(119) Though the Ministry stated that «a mathematical method was adopted. . .», no information was given on such a method or any other device by which the project estimates were made. See Ministry of Industry, **Industry after the Revolution. . .**, **Op. cit.**, pp. 105 and 106-21.

From the allocation pattern by activity, one can see that the largest share in total development outlay of the programme was allotted for manufacturing (about 71 per cent) ; then followed by petroleum (about 16 per cent), mining (about 10 per cent) and industrial training and research (about 1 per cent). The Ministry stated that in manufacturing, mining and petroleum « the program stipulates spending no less than 75% of the value of the capital designated for investment on the development of basic and mixed manufacturing industries ». « It is evident », the Ministry continued, « that the success of the present 5 year plan widens the possibilities of investment in basic industries in the following programs ». (120)

From the definitions of various groups of industries and the detailed description of the programme project-wise in the Ministry's document, (121) the general strategy adopted seems to be on the whole reasonable. This strategy was based on establishing consumer goods industries to meet part of the needs of the domestic market and the possibilities for export, and some basic and intermediate goods industries to meet part of the requirements of existing and planned consumer goods industries and final consumption as well as the possibilities for export. Realistically, at this early stage of the development process (and contrary to the Indian experience during this phase as will be detailed below), heavy industries (particularly industries which make machines to make machines) were not included in the programme. Apart from an iron and steel project which was left over from the first phase for completion and one or two heavy chemical projects, planned basic and intermediate goods

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(120) Ministry of Industry, **Industry after the Revolution. . .**, **Op. cit.**, p. 107.

(121) According to the Ministry, « basic industries » are those whose products are used as raw materials for other industries, « consumer goods industries » are those which produce articles necessary for direct public and private consumption, and « mixed industries » are those whose products may be used as raw material for other industries or as articles necessary for direct public or private consumption. See Ministry of Industry, **Industry after the Revolution. . .**, **Op. cit.**, p. 105 and 237-96.

industries were mainly cement, fertilizers, paper and paperboard, glass, etc. [122]

As for the financing of the total development outlay of the programme. the Ministry did not specify how this was going to be done. Important questions in this respect such as what were the sources of finance expected ?, what were their expected contributions . what were the expected contributions of the public and the private sectors ?, etc., were left virtually unanswered. Only with respect to the share of manufacturing activity excluding reserve funds in total outlay of the programme (L.E. 162 million, see Table V.12 above), the Ministry estimated the expected financial requirements in terms of foreign currency and local currency as about 66 per cent and 34 per cent of that share, respectively. As to how this was to going to be effected and from what sources, the Ministry said virtually nothing. [123] With respect to the total of the shares of manufacturing and petroleum activities excluding reserve funds in total outlay of the first three stages of the programme (L.E. 114.7 million, as shown in Table V.12 just mentioned), the Ministry estimated that the expected contributions of the public and the private sectors in the financial resources required were to be about 21 per cent and 79 per cent, respectively. Again, no information as to how these estimates were calculated and how these resources were going to be mobilized was provided. [124]

As the programme was for both the public and the private sectors, the accent was on their « co-operation » in the implementation process. In the Ministry's words, « the development programs involve activities of the Government and private industry. There must be co-ordination and direction for both, so that they may act together to realize the objectives...... »

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(122) For details, see Ministry of Industry, **Industry after the Revolution. . . , Op. cit.,** pp. 111-21 and 237-96.
(123) See Ministry of Industry, **Industry after the Revolution. . . , Op. cit.,** pp. 107, 123, 125 and 172.
(124) Ministry of Industry, **Industry after the Revolution. . . , Op. cit.,** pp. 107 and 131.

aimed at. [125] However, no information on the relative roles of the two sectors in the implementation process was available. In the Ministry's document, data on the relative shares of the two sectors in total outlay, their respective responsibilities in the implementation of the programme and their spheres of action were completely absent. Nevertheless, the Ministry expected an increasing role of the public sector in the industrial development envisaged. [126]

With the « Egyptianization » of foreign concerns (over 1500) [127] of 1957 and the establishment of the Economic Organization to take over this property in that year, as mentioned in Chapter IV, the public sector emerged as « a major power in the Business sector ».[128] The Economic Organization was also empowered to acquire the capital of public enterprises and to participate in and establish all kinds of projects. [129] Towards the end of 1957, an organization affiliated to the Ministry of Industry, was also established. The organization was called « the Organization for Implementing the Five Year Industrial Plan ». As its name indicated, it was empowered to supervise and participate in the implementation of the programme. [130] These developments of industrial ownership and organization at the beginning of the programme probably gave the public sector an increasing role in the implementation process.

With respect to the private sector, besides the incentives and encouragements provided for private enterprise during the first phase, as mentioned in Section I, the Ministry of Industry drafted in 1957 a law for the organization and encouragement of industry. This draft law was enacted as Law No. 21 of 1958,

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(125) Ministry of Industry, **Industry after the Revolution. . . , Op. cit.,** p. 93.
(126) Ministry of Industry, **Industry after the Revolution . . .', Op. cit.,** pp. 97-178 and 179-94.
(127) This estimate was made by Professor G. Said in his **The Road to Socialism, Op. cit.,** pp. 378-79.
(128) See National Bank of Egypt, **Egypt's Economic Growth. . .', Op. cit.,** p. 15.
(129) For details, see references cited in Chapter IV.
(130) See Ministry of Industry, **12 Years of Industrial Development. . . , Op. cit.,** p. 180

as mentioned in Chapter IV. It gave the Ministry an over-all control over all industrial activities in the country. It covered licensing of the establishment, expansion or limitation of capacity, change of purpose or location of any plant ; and export or import of machinery and industrial raw materials, price fixing, quality specifications, tariff incentives, credit facilities, tax exemptions ; training and research facilities ; etc. (131)

These are the main features of the industrial part of the national planning effort during this phase. As for the other sectoral parts, they were carried out by the Ministries concerned, as mentioned above. In agriculture, irrigation and drainage, and land reclamation, planning was the responsibility of the Ministries of Agriculture, Public Works and Agrarian Reform, respectively. Similarly, various public services were planned by various services Ministries. However, planning activities for these sectors were probably made on annual basis through the State budgets. There were no formal detailed programmes such as that of the industrial sector. (132)

In agriculture, besides the policy measures enacted during the first phase, the government took further steps in its reform of the agrarian structure and in its encouragement to cultivators to increase their productivity in general. In 1957, amendments to the Land Reform Law of 1952 were issued, which extended the expropriations to include the **Wakfs** and the land-reclaiming companies (Laws Nos. 84 and 152 of 1957). (133) In September 1958, a further amendment was decreed, according to which, as mentioned in Chapter IV, the period for redeeming the amount

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(131) For details, see Miinistry of Industry, **Industry after the Revolution. . .**, **Op. cit.**, pp. 225-34.

(132) The work of the PCDNP and the PCPS for the first phase probably served as a basis for these Ministries' planning activities, project-wise, particularly with respect to long-term projects such as the High Dam, land reclamation, etc., in the agricultural sector ; and health, education, transport, etc., in the services sector. See this Chapter, Section 1, particularly Footnote (26). For details, see PCDNP, **Interim Report, Op. cit.** ; and PCPS **Atlas of Services, Op. cit.**

(133) See Agrarian Reform Organization, **Agrarian Reform : . . . , Op. cit.**, pp. 85-91 and 101-03.

of compensation for the land expropriated under the 1952 Law (as well as receiving the price from the beneficiaries) was changed from thirty to forty years and the interest was reduced from 3 to 1,5 per cent. The maximum ownership of land was also changed from 200 feddans per person to 300 feddans per family. In 1957, the government decided to organize co-operatives throughout the countryside by extending the practice applied in the land reform areas in this respect, as outlined in Section I. All co-operatives were linked to the Agricultural and Co-operative Bank (a government institution) which was empowered to supervise their activities. Public credit for agriculture was made obtainable only through co-operative. For extending their scope and strengtheniig their position in rural life, the government offered reductions on seed, fertilizers, insecticides, implements, etc., purchased from the Bank through the co-operatives. [134]

From this outline of planning activities and of general policy measures during this phase, one can see that Egyptian planners were cautious with respect to the total size of the planned development outlay, its pattern of finance and the overall planning strategy. This strategy was based on more emphasis on industrialization as well as on infra-structural activities such as irrigation and drainage works electricity, and transport. Agriculture was also given an important place and the agrarian structure was further re-organized. In view of the economic circumstances of the country (see Chapters III and VII), this strategy seems to be on the whole reasonable. Its industrial part was based on more self-sufficiency, import-substitution and export promotion, withou undue emphasis on certain lines. In general, the main feature of planning was more or less similar to that of the first phase, namely, a detailed examination of individual projects which were to be selected according to some general criteria and on sectoral basis, without "sufficient» attention to inter-sectoral and intra-sectoral relations or to

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(134) For details, see United Arab Republic, Ministry of Agriculture, **The Agricultural Production Under the Social System,** (Cairo, July, 1963), pp. 24-26.

the over-all consistency of the national development effort envisaged.

In the Indian case, the planners began as early as April 1954 to formulate the Second Plan. On 2nd May 1956, ther draft was approved and adopted as « The Second Five Year Plan » by the National Development Council. [135] In contrast with the First Plan, the Second was very bold, ambitiously big and very much industrially oriented. Its basic strategy was conceived with special reference to the task of raising the growth potential of the industrial sector. The development of heavy industries was the main emphasis of the Plan. One must emphasize from the start that in the Indian case, as in the Egyptian, some emphasis on industrial development or even on the development of some heavy industries would by no means have been a mistaken strategy during this phase. What was surely questionable or even faulty was the Indian Plan's excessive and indiscriminate emphasis on heavy industries, during such a short period (1956/57–1960/61), as will be discussed in some detail below.

As in the case of the First Plan as well as the Egyptian second planning phase, the Second Plan was conceived against a longer perspective. As will be seen below, this perspective was more realistic and technically more refined in comparison with those of the First Plan and the Egyptian second phase, outlined above. The main reasons for this relative superiority were : (1) the dropping of the unrealistic assumptions of postulating constant values for basic parameters such as the rate of growth of population, capital-output ratio, etc., throughout the period of the perspective ; and (2) the more realistic estimates of the planned values of each parameter over the period of the perspective. However, this is quite a natural development in the planning process, as improving, revising and adjus–

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(135) This Council was established in 1952. Its tasks are similar to those of the Egyptian Supreme Council of National Planning, namely, to set the basic national economic and social objectives, to approve the development plans and to supervise their implementation. See this Chapter above and Chart VI-C-2 in Appendix C below.

ting the values of the parameters as well as the base variables from time to time are in fact the only way of keeping such longer perspectives having any operational significance.

The perspective and the Plan targets of investment and income were projected from a simple aggregative model for the economy as a whole, which was essentially similar to those used in the First Plan and in the Egyptian plannng activities, discussed above. The base year of this projection was the same year which was taken as a base in the First Plan projection, namely, 1950/51. The basic data of this year were estimated for this perspective as : (1) national income of about Rs. 9,110 crores at 1952/53 prices ; (2) total net investment of about Rs. 450 crores at 1592/53 prices, or about 5 per cent of national income ; (3) total population of about 362 million ; and (4) per capita income of about Rs. 252 at 1952/53 prices. The data of the first five-year period of the perspective were those of the actual performance of the First Plan, and therefore were taken as given. In fact, these data served as an important base against which the parameters concerning the rest of the perspective could, more realistically, be determined.

These basic data of the actual performance of the First Plan were estimated by the Planning Commission at the end of the period of the First Plan (1955/56) as : (1) national income of about Rs. 10,800 crores at 1952/53 prices ; (2) total net investment of about Rs. 3,100 crores at 1952/53 prices, or about 7 per cent of national income ; (3) incremental capital-output ratio of about 1.8 : 1 for the five-year period ; (4) total population of about 384 million ; and (5) per capita income of about Rs. 281 at 1952/53 prices.

Accordingly, **the basic assumptions of the perspective** were made by the Commission as : (1) average annual rates of growth of population of 1.25 per cent, 1.33 per cent and 1.4 per cent for the three decades 1951-60, 1961-70 and 1971-80, respectviely ; (2) capital-output ratios for the economy as a whole of 2.3 : 1, 2.6 : 1, 3.4 : 1 and 3.7 : 1 for the Second, Third, Fourth and Fifth Plan periods, respectively ; (3) an increase in the

rate of total net investment from about 7 per cent in 1955/56 to about 11 per cent in 1960/61, 14 per cent by 1965/66 and 16 per cent by 1970/71 ; (4) a « practically stable » rate of total net investment after 1970/71, rising to 17 per cent by 1975/76 ; and (5) a measure of external assistance to supplement domestic resources in financing the total net investment projected for the Second and Third Plan periods, after that a self-sustained and a self-financed development was postulated. [136]

These assumptions, though more realistic in comparison with those of the perspective of the First Plan, were still very tentative and conjectural, particularly with respect to the latter periods of the perspective. With respect to the population assumptions, the Commisson had this to say : « These estimates are intermediate between the upper and lower estimates put forward by the Census Commissioner in the Census Report, 1951, and it can be said of them, as the Census Commissioner has said regarding his own, that they may well prove to be on the low side.» [137] In fact, they were very much so. According to the results of the 1961 Census, the average annual rate of population growth was about 2.15 per cent for the decade 1951–60.[138] This rate did not only surpass all the estimated rates of the perspective but also amounted to nearly twice that estimated for the last projected decade, 1971-80, (see also Table VIII-A-45 in Appendix A below).

The series of the capital–output ratios reflected the Commission's assumption that the ratio was expected to increase as the economy grew. The relatively low ratios assumed for the Second and Third Plan periods were influenced by the actual-output ratio for the First Plan period 1951-56 and the implicit assumption that somehow the favourable conditions prevailed during the First Plan period would take about fifteen years

(136) See Planning Commission, **Second Five Year Plan, Op. cit.**, pp. 3 and 8-11 ; and Table V.13 below.
(137) Planning Commission, **Second Five Year Plan, Op. cit.**, p. 8.
(138) See Planning Commission, **Third Five Year Plan, Op. cit.**, p. 22 ; and Ministry of Finance, **India : ...., 1962, Op. cit.**, p. 16.

to work themselves out. [139] With the exception of the Second Plan ratio which was obtained from calculations of the estimated increases in net output in individual sectors, the other ratios were aggregate and illustrative. [140] The Planning Commission finally emphasized that «... it may be remembered that non-monetised investment has not been included in the calculations of capital inputs. There is considerable inevstment of this kind in a predominantly rural economy». [141] In so far as nonmonetization is expected to become quantitatively less important in the future, any series of capital-output ratios based on only monetized investment will understate the early ratios relative to the latter ones. This may partly account for the explanation of the differences in the levels of the ratios assumed.

With respect to the rates of total net investment planned, the Commission described the rates assumed for the perspective of the First Plan as «excessively high expectations», [142] then put the rates of this perspective at a lower level and for a later date, as outlined above. The Commission however pointed out that «a net investment rate of 16 or 17 per cent of national income is decidely high though not unattainble». [143]

According to these assumptions, the national income of 1950/51 was expected to be doubled in 1967/68, and per capita income by 1973/74, both at 1952/53 prices. Both targets were aimed at four years earlier than was expected according to the First Plan perspective. As the actual rise in national income by the end of the First Plan period had been above initial expectations (as will be discussed in some detail in Chapter VII), the rise at the end of the first two plans was expected to be as large as 47 per cent, compared with 25 per cent according to the First Plan perspective. Table V.13 summarizes the main assumptions and targets of the perspective under consideration.

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(139) Planning Commission, **Second Five Year Plan, Op. cit.**, pp. 8-9.
(140) Planning Commission, **Second Five Year Plan, Op. cit.**, p. 9.
(141) Planning Commission, **Second Five Year Plan, Op. cit.**, p. 10.
(142) Planning Commission, **Second Five Year Plan, Op. cit.**, p. 10. However, these rates were the Commission's own estimates. See Section I.
(143) Planning Commission, **Second Five Year Plan, Op. cit.**, p. 10.

TABLE V.13.

PLANNED GROWTH IN INCOME AND INVESTMENT 1951-1976

Item	Base Year (1950/51)	First Plan (1951-56)	Second Plan (1956-61)	Third Plan (1961-66)	Fourth Plan (1966-71)	Fifth Plan (1971-76)
I — End Year Data						
1. National Income (in Rs. Crores)	9,110	10,800	13,480	17,260	21,680	27,270
2. Investment as a % of N. Income	4.9	7.3	10.7	13.7	16.0	17.0
3. Population (in Mns.)	362	384	408	434	465	500
4. Per Capita Income (in Rs.)	252	281	331	396	466	546
II — Period Data						
5. Total Net Investment (in Rs. Crores)	450	3,100	6,200	9,900	14,800	20,700
6. Capital - Output ratio	—	1.8:1	2.3:1	2.6:1	3.4:1	3.7:1

Notes: i — Data for the First Plan are actual.
ii — All data are at 1952/53 prices.

Sources: Planning Commission, **Second Five Year Plan, Op. cit.,** pp. 3 and 11.

Accordingly, the national income of India by the end of the Second Plan was expected to increase from Rs. 10,800 crores in 1955/56 to Rs. 13,480 crores in 1960/61 at 1952/53 prices, i.e., by about 25 per cent which was more than double the planned rate of increase for the First Plan (11 per cent). As shown in the table, this increase in national income (Rs. 2,680 crores) was expected to be brought about by a total net investment of about Rs. 6,200 crores at 1952/53 prices over the five year period. The share of the public sector in this total was

estimated to be about Rs. 3,800 crores or about 61 per cent. The rest, Rs. 2,400 crores or about 39 per cent, was expected to be carried out by the private sector. [144]

Compared with the relative shares of the public and the private sectors in total net investment in the First Plan (namely, 47 per cent and 53 per cent, respectively), this pattern of investment allocation in the Second Plan clearly shows a distinctive shift in emphasis towards the public sector and its role in the economic development of the country. [145] In this respect, the Planning Commission had this to say : « The public sector has to expand rapidly. It has not only to initiate developments which the private sector is either unwilling or unable to undertake ; it has to play the dominant role in shaping the entire pattern of investments in the economy, whether it makes the investments directly or whether these are made by the private sector.» [146]

This total net investment was expected to be financed partly by domestic resources of about Rs. 5,100 crores or about 82 per cent of the total resources required, and partly by external resources of about Rs. 1,100 crores or about 18 per cent. These domestic resources were « estimated net domestic savings » over the five-year period of the Plan. This estimate was based on the assumption that domestic savings were expected to rise from about 7 per cent of national income at the beginning of the Second Plan period to some 10 per cent by the end of the period. In the Commission's opinion, this increase in the rate of domestic savings was « by no means excessive », [147] a statement which is going to be examined against the actual performance of the economy during the Second Plan period in Chapter VII.

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(144) Planning Commission, **Second Five Year Plan, Op. cit.,** pp. 11 and 56-58.
(145) This emphasis seems to be quite excessive in view of the encouraging performance of the private sector in general and even in comparison with that of the public sector during the First Plan period, as will be discussed in Chapter VII.
(146) See Planning Commission, **Second Five Year Plan. Op. cit.,** p. 22.
(147) Planning Commission, **Second Five Year Plan, Op. cit.,** p. 92.

The contribution of the public sector to total net domestic savings envisaged was expected to be only about 7 per cent. The rest (about 93 per cent) was expected to be provided by the private secor. Total external resources consisted of expected withdrawal from Sterling balances of Rs. 200 crores and expected external assistance of about Rs. 900 crores (Rs. 800 crores for the public sector and Rs. 100 crores for the private sector). Considering the withdrawal from Sterling balances a public sector financial resource, the share of the public sector in financing total net investment was expected by the Commission to be about Rs. 550 crores or only about 9 per cent. The rest of the financial resources required was expected to be provided by the private sector (about Rs. 4,750 crores or about 77 per cent) and foreign ssistance (about Rs. 900 crores or about 14 per cent). (148) Compared with the financial situation of the First Plan, in financing its net investment during the Second Plan, the public sector was expected to depend heavily on the financial resources of the private sector and the expected external assistance. Here, the danger of possible excessive strains on the economy through price rises and other distortions was more than a threat. On this problem, the Commission only stated that « ...... the issue is essentially one of the adequacy of instruments or policies for getting the desired result». « It is virtually impossible », the Commission continued, « to know in advance whether the necessary savings would be forthcoming ; nor is it easy to predict where any shortage in savings would impinge ». (149)

After these aggregate national data, the Second Plan, like the First, was primarily concerned with the activities of the public sector. However, compared with the First Plan as well as the Egyptian planning activities during the first two phases outlined above, this Plan did provide some detailed information on the broad categories into which net investments of the private sector were expected to fall, and on the policy measures thought

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(148) For more details, see Planning Commission, **Second Five Year Plan, Op. cit.**, pp. 10, 82-83, 92-93 and 102-03.
(149) Planning Commission, **Second Five Year Plan, Op. cit.**, p. 93.

necessary to bring the private sector to play its part « within the framework of the comprehensive plan accepted by the community ». [150] The Commission emphasized that, « the targets of production and development represent the combined result of investment in both sectors ». [151] Accordingly, the Commission outlined on a national basis the general aims and objectives of the Plan, and roughly assessed its targets in terms of physical and financial national output by industrial origin as well as employment opportunities expected to be created by the end of the plan period. This assessment was based on the pattern of investment allocation by industrial origin envisaged. So, before discussing this assessment, a representation of the Plan investment budget as well as the general policy measures suggested for its implementation is firstly attempted.

The Planning Commission enumerated **the principal objectives of the Plan** as : (1) a sizable increase in national income so as to raise the level of living in the country (about 25 per cent by the end year) ; (2) rapid industrialization with particular emphasis on the development of basic and heavy industries ; (3) a large expansion of employment opportunities (about 10 million) ; and (4) reduction of inequalities in income and wealth and a more even distribution of economic power. The Commission then stressed that the objective no. (4) « can follow only from the totality of measures and institutional changes undertaken as part of the plan » such as « the pattern of investment proposed, the direction to economic activity given by State action, the impact of fiscal devices used for mobilising the resources needed for the plan, the expansion of social services, and the institutional changes in the sphere of land ownership and management,...... » [152]

In the light of these objectives and the data of the perspective outlined above, the Commission determined **the volume and**

(150) Planning Commission, **Second Five Year Plan, Op. cit.,** p. 23.
(151) Planning Commission, **Second Five Year Plan, Op. cit.,** p. 57.
(152) Planning Commission, **Second Five Year Plan, Op. cit.,** p. 33 ; and this Chapter below.

the pattern of allocation of the development outlay of the Plan. This planned development outlay was estimated as Rs. 7,200 crores at 1952/53 prices. The shares of the public and the private sectors in this total outlay were put as Rs. 4,800 crores and Rs. 2,400 crores respectively. The first share consisted of Rs. 3,800 crores as net investment and Rs. 1,000 crores as expenditure on revenue account. The second was considered as net investment. However, reliable estimates of total net investment expected in the private sector, as the Commission admitted, were not available. In fact, it was not possible to present anything, to use the Commission's words, « ...... more than a broad guess of the likely trends over the next five years. » (153) A break-up of the three types of development expenditure by industrial origin is shown in Table V.14.

This table clearly shows the general pattern of priorities of the Plan. The topmost priority was given to industry, mining and power (29.5 per cent). Next came transport and communications (21.3 per cent) ; followed by agriculture, community development and irrigation (18.4 per cent) ; construction and residential buildings (14.5 per cent) ; (154) and social services (11.4 per cent). From this allocation pattern, it is abvious that the relative emphasis was on industrialization and the necessary ancillaries like transport and power.

The allocation pattern of the outlay of the public sector (which was the plan «proper») was more or less the same as those of the Second Plan Draft Outline (Feb., 1956) and the Second Plan revised estimates (May, 1958). (155) The first was published for eliciting comments and suggestions before the final

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(153) Planning Commission, **Second Five Year Plan, Op. cit.**, p. 57.

(154) Provisions for construction activities of the commodity sectors (agriculture and industry) as well as transport and communications, power and irrigation were included in their respective shares. See Sources of Table V.14 below.

(155) See Gov. of India, Planning Commission, **Second Five Year Plan : A Draft Outline**, (New Delhi, 1956) ; its **Appraisal and Prospects of the Second Five Year Plan**, (New Delhi, 1958) ; and its **Second Five Year Plan : Progress Report, 1958/59**, (New Delhi, 1960).

TABLE V.14.

ALLOCATION OF PLAN OUTLAY, BY INDUSTRIAL ORIGIN

(In Rs. Crores)

Industrial Origin	Public Sector Outlay			Private Sector Net Invest-ment	Total Plan Outlay	
	Net Invest-ment	Current Outlay	Total Outlay		Total	%
(1)	(2)	(3)	(4=2+3)	(5)	(7=4+5)	(8)
1. Agriculture & Community Development	338	230	568	174	742	10.3
2. Irrigation & Flood Control	456	30	486	99	585	8.1
3. Power	407	20	427	25	452	6.3
4. Organized Industries & Mining	670	20	690	676	1,366	19.0
5. Village & Small-scale Industries	120	80	200	99	299	4.2
6. Transport & Communications	1,335	50	1,385	149	1,534	21.3
7. Construction & Residential Buildings	120	—	120	924	1,044	14.5
8. Other Services (including health & education)	335	490	825	—	825	11.4
9. Miscellaneous (including stocks)	19	80	99	254	353	4.9
Total	3,800	1,000	4,800	2,400	7,200	100.0

Notes: i — (—) = nil or negligible.
ii — Item (9) only consists of stocks in the case of the private sector.

Sources: Planning Commission, **Second Five Year Plan, Op. cit.,** pp. 51-52 and 56-57, and **Papers Relating to the Formulation of the Second Five Year Plan, Op. cit.,** pp. 59 and 61; and W. Malenbaum, **Prospects for Indian Development, Op. cit.,** pp. 90-91.,

formulation of the Plan. The second was an early appraisal of the Plan. According to the Commission, this appraisal was made in view of the serious stresses and strains in the economy caused by initial administrative problems, reorganization of States, rise in development costs, rapid depletion of foreign exchange reserves, large budgetary deficits, sharp fall in agricultural output in 1957/58, marked rise in foodgrains prices and the general inflationary tendency induced by increased developmental expenditure both in the public and the private sectors. (156) A review of the financial resources expected was therefore undertaken. It revealed that available resources were likely to be short in relation to the original outlay of the Plan. The estimates then made indicated the expected level of total resources for the public sector at around Rs. 4,260 crores over the five-year period. (157) At this stage, the National Development Council agreed to retain the ceiling of outlay at Rs. 4,800 crores. At the same time, the Council directed that projects and programmes were to be divided into two parts.

The first part involving an outlay of Rs. 4,500 crores was to include projects and programmes directly related to the increase of agricultural production, « core projects », and projects which had reached an advanced stage. In respect of these three groups, commitments could be entered into for the rest of the period of the Plan on « ... the assumption that the resources needed would be found. » (158) The second part with an outlay of Rs. 300 crores consisted of the rest of the projects of the Plan. Expenditure on this part was to be undertaken only to the extent additional resources became available.

However, as far as the allocation pattern was concerned, the pattern adopted in the Plan remained more or less the same after these revisions. In fact, there were virtually no changes

(156) Planning Commission, **Second Five Year Plan ; Progress Report, .., Op. cit.**, pp. 1-10.
(157) No Comparable figures had been suggested for the private sector. For more information on the financial question see this Chapter and Chapter VII, below.
(158) See Planning Commission, **Second Five Year Plan : Progress Report, .., Op. cit.**, p. 18.

since the pattern suggested in the Draft Outline. This is clearly shown in Table V.15 below. This table presents the three allocation patterns of total development outlay of the public sector which were suggested in the Draft Outline, the Plan, and the revised estimates.

TABLE V.15

ALLOCATION OF PUBLIC SECTOR PLANNED OUTLAY, BY INDUSTRIAL ORIGIN

(In Rs. Crores)

Industrial Origin	Draft Outline		Plan		Revised Estimates	
	Total	%	Total	%	Total	%
1. Agriculture & Community Development	565	11.8	568	11.8	568	11.8
2. Irrigation & Power	898	18.7	913	19.0	860	17.9
3. Industry & Mining	891	18.6	890	18.5	1,080	22.6
4. Transport & Comm.	1,384	28.8	1,385	28.9	1,345	28.0
5. Social Services	946	19.7	945	19.7	863	18.0
6. Miscellaneous	116	2,4	99	2.1	84	1.7
Total	4,800	100.0	4,800	100.0	4,800	100.0

Notes : i — All data are at 1952/53 prices.
ii — Item (3) includes village and small-scale industries.
iii — Item (5) includes health, education, etc... as well as housing.
iv — Item (6) includes stocks.

Sources : Planning Commission, **Second Five Year Plan: A Draft Outline, Op. cit.,** p. 22 ; **Second Five Year Plan, Op. cit.,** pp. 51-52 ; and **Second Five Year Plan : Progress Report, 1958/59, Op. cit.,** pp. 16 and 18.

From Tables V.5, V.14 and V.15 above concerning the allocation patterns of planned outlays of the First and the Second Plans, one can clearly see the drastic shift of emphasis from agriculture in the First Plan to industry in the Second. While the First Plan was an « agriculture and irrigation plan,» the Second was clearly an « industry and transport plan ». Such a drastic

shift was not adopted in the Egyptian case. In the Egyptian first phase, agriculture and irrigation were given the first priority (see Tables V.2 and V.4 above). In the second phase, though the first priority was given to industry and electricity, agriculture came as a strong second (see Table V.10 above). In contrast, agriculture came as a poor third in the pattern of priorities of the Indian Second Plan, as mentioned above. Considering the economic conditions in general and the state of agriculture in particular in each country, (159) Egyptian strategy during this phase seemed to be on the whole more reasonable than the Indian. (160)

The Indian Planning Commission virtually refrained from arguing its case. In the Draft Outline, it declared : « the case for big advance towards industrialisation hardly needs to be argued in detail. The Indian economy at present depends excessively on agriculture. It has to be diversified ». « The need for a large provision for industries in the second plan», the Commission continued, « is all greater for the reason that the expenditure under this head has lagged behind the provisions made in the first Plan». (161) In the Plan document, the Commission stated that « low or static standard of living, underemployment and unemployment ...... are all manifestations of the basic underdevelopment which characterises an economy depending mainly on agriculture. Rapid industrialisation and diversification of the economy is thus the core of development.» (162) These are very general statements. The question here is not whether to industrialize or not. The case for industrial development within a general strategy for developing the underdeveloped economies is well accepted by the majority of development economists. (163) This is particularly so in India and Egypt as mentioned in Chapter III and this Chapter, Section I, above.

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(159) See Chapters III, VII and VIII.
(160) This appeared to be so even considering the rich and varied rawmaterial base, the size of the market, etc., in India. See this Chapter below.
(161) Planning Commission, **Second Five Year Plan : A Draft Outline, Op. cit.**, p. 23.
(162) Planning Commission, **Second Five Year Plan, Op. cit.**, p. 25.
(163) For information on this point, see Chapters I and II.

The relevant question seems to be why too much emphasis was put on industrialization, relative to agricultural development at a time when agriculture was very much underdeveloped (see Chapters III, VII and VIII) and the food problem was the country's formidable bottleneck to development.

Agricultural development was and still largely is (and probably will be for many five-year plans to come) the crucial factor in Indian development process. In general, there are at least two reasons why expansion of agricultural production is a crucial element in sustained industrial development. Firstly, the agricultural sector must provide a food surplus for the industrial labour force unless or until the country possesses foreign exchange reserves or other means to finance food imports. Secondly, agricultural production must first substantially increase and generate incomes to provide a market for the output of industry. In other words, an "agricultural revolution" seems to be a basic element in a successful "industrial revolution" in underdeveloped countries like India. More emphasis on agricultural rather than industrial development seems therefore to be on the whole a more appropriate course to follow. So, it is not an exaggeration to suggest that the relative emphasis on industrialization in the Second Plan was by and large "excessive" and not justified. This statement may be substantiated by the events which led to the appraisal of the Plan as early as May 1958, as mentioned above, (see also Chapter VII).

More serious still is the "excessive" emphasis on basic and heavy industries in the planned industrial development.(*) Table V.16 below breaks up the provision of large-scale industries in the Second Plan to heavy industries or producer goods and industrial machinery and capital goods, and consumer goods industries.

(*) As to what constitutes "basic and heavy industries" in the Indian and Egyptian cases, see this Chapter and VI ; Tables VI-A-16 and 17 in Appendix A below.

TABLE V. 16

ANTICIPATED INVESTMENT IN LARGE-SCALE INDUSTRIES

(In Rs. Crores)

Line of Industries	Private Sector		Public Sector		Total Investment	
	Total	%	Total	%	Total	%
1. Consumer Goods	12	2.2	167	31.2	179	16.4
2. Producer Goods	463	82.8	296	55.3	759	69.4
3. Industrial Machinery & Capital Goods	84	15.0	72	13.5	156	14.2
Total	559	100.0	535	100.0	1,094	100.0

Source : Planning Commission, **Second Five Year Plan, Op. cit.,** p. 416.

From this table and Table V.14 above, one can see the relative emphasis on heavy industries and the necessary ancillaries like transport and power. Again, the Commission had not actually explained how and why the Plan specific allocations were made. In the Draft Outline, it declared : "The principal objective of the second five year plan is to secure a more rapid growth of the national economy and to increase the country's productive potential in a way that will make possible accelerated development in the succeeding plan periods." "To this end", the Commission continued, "the building up of economic and social overheads, exploration and development of minerals and the promotion of basic industries like steel, machine building, coal and heavy chemicals are vital." (164)

In the Plan document, the Commission made a similar point by saying that "... the criterion is not merely immediate needs but the continuing and expanding needs in the coming years as development goes forward." Accepting industrialization as the core of development, the Commission went on to say : "But if industrialisation is to be rapid enough, the country must aim

(164) Planning Commission, **Second Five Year Plan: A Draft Outline, Op. cit.,** pp. 6-7.

at developing basic industries and **industries which make machines to make machines** needed for further development." The Commission then admitted that "investment in basic industries **creates demands for consumer goods, but it does not enlarge the supply of consumer goods in the short run ; nor does it directly absorb any large quantities of labour".** The solution of this problem, in the Commission's words, "... requires a well-organised effort to utilise labour (which is plentiful) **for increasing the supplies of much needed consumer goods** in a manner which **economises the use of capital".**[165] The Commission then singled out "village and small-scale industries" as the best sector for the purpose. Agriculture and various construction works in the economy were also considered very important in this respect. Programmes in the first activity were expected to relieve the underemployment situation and to contribute significantly to the enlargement of the supply of goods required. Programmes in the second, though of a temporary nature, were thought of as an additional source of employment opportunities for the new entrants to the labour force over the plan period.

From this account, it seems that the Commission did recognize the basic problem in adopting such a strategy. However, from the relative small shares of agriculture and consumer goods industries in general and village and small-scale industries in particular in total outlay of the Plan, it is obvious that the Commission did not actually do anything about it. Nor did it explain in specific terms how the needed increase in the supply of consumer goods was going to be achieved. Apart from these general statements, the Commission was completely silent with respect to the vital questions concerning the specific grounds upon which the allocation pattern was based, and the achievement of the necessary increase in consumer goods during the Plan period.[166]

However, an explanation of the pattern of investment allocation was (less officially) provided by Professor P.C. Mahala-

(165) Planning Commission, **Second Five Year Plan, Op. cit.**, p. 25, (my italics).
(166) However, the Commission did estimate the anticipated sectoral contributions to physical and financial national output and to national employment in the end year. Here again no information as to how these estimates were made was provided. for further details on this point, see this Chapter below.

nobis, who is considered as the chief architect of the Second Plan.[167] His "Draft Plan-frame", which consisted of broad sectoral investment allocations, was based on his analytical **"four sector model of the Indian economy".** The model itself was basically an allocation model.

The basic assumptions of this model are : (1) initial national income of Rs. 10,800 crores at 1952/53 prices ; (2) a total net investment of Rs. 5,610 crores at 1952/53 prices during the five-year period ; (3) a proportion of 33 per cent of total net investment to be allocated to "investment goods industries" ; (4) a rate of increase in national income of 5 per cent per year at constant prices ; and (5) a total employment opportunities of 11 million jobs to be created during the five-year period. The sectors specified in the model and its variables and parameters are as shown in Table V.17.

TABLE V.17

THE VARIABLES AND PARAMETERS OF MAHALANOBIS'S MODEL

Sector	Sector's Symbol	New Employment	Capital Needed Per Worker	Total Capital Needed	Income Coefficient of Capital	Income Generated
(1)	(2)	(3)	(4)	(5)=(3×4)	(6)	(7)=(5×6)
1. Basic Investment Goods	i	n_i	θ_i	$n_i\theta_i$	β_i	$n_i\theta_i\beta_i$
2. Factory Consumer Goods	1	n_1	θ_1	$n_1\theta_1$	β_1	$n_1\theta_1\beta_1$
3. Household Industries & Agriculture	2	n_2	θ_2	$n_2\theta_2$	β_2	$n_2\theta_2\beta_2$
4. Services	3	n_3	θ_3	$n_3\theta_3$	β_3	$n_3\theta_3\beta_3$

Note : Item (1) includes heavy industries, power and transport and communications.

Sources : P.C. Mahalanobis, "The Approach of Operational Research to Planning in India." **Op. cit.**, p. 47 ; and M. Mukherjee, "Scientific Approach in Planning", **Op. cit.**, p. 162.

(167) See Planning Commission, **Second Five Year Plan, Op. cit.**, p. xii. However, the Commission never spelt out or even mentioned the relation between Mahalanobis's work and the final Plan, particularly with respect to the allocation question.

If (N) is the total new employment, (A) the aggregate net investment, and (E) the aggregate national income generated by the end of the period, then it is possible to write :

$$N = n_i + n_1 + n_2 + n_3 ,$$

$$A = n_i\theta_i + n_1\theta_1 + n_2\theta_2 + n_3\theta_3 , \text{ and}$$

$$E = n_i\theta_i\beta_i + n_1\theta_1\beta_1 + n_2\theta_2\beta_2 + n_3\theta_3\beta_3.$$

Since (N), (A) and (E) are given and as one third of (A) is assumed to be allotted for sector (i), it is possible to solve this simultaneous-equation system. On the basis of the available evidence, Professor Mahalanobis worked out estimates for the parameters (θ) and (β). Accordingly, he solved the system giving the broad sectoral allocation of total net investment, total new employment and total increase in national income by the end of the period.[168] The values of the parameters and the solution of the system are given in Table V. 18 below.

TABLE V.18

THE SOLUTION OF MAHALANOBIS'S MODEL

Sector's Symbol	Values of Parameters		Solution		
	β (Ratio)	θ (In Rs.)	N, Employment (In Mns.)	A, Investment (In Rs. Crores)	E, Income (In Rs. Crores)
(1)	(2)	(3)	(4)	(5)	(6)
i	0.20	20,000	0.9	1,850	370
1	0.35	8,750	1.1	980	340
2	1.25	2,500	4.7	1,180	1,470
3	0.45	2,750	4.3	1,600	720
Total	0.52	5,100	11.0	5,610	2,900

Note : (β) and (θ) for the economy are calculated from the assumptions on investment, employment and national income, namely, the totals of columns, (4), (5) and (6) which are given.

Sources : See Sources of Table V.17 above.

The broad sectoral aggregates in this table were then split up into detailed targets. For this, naturally various supplemen–

(168) For more details, see Mahalanobis, "The Approach of Operational Research to Planning in India", **Op. cit.**, pp. 47-51.

tary considerations were necessary. A trial set of targets for a sector was chosen at first and details about employment, investment and income were aggregated. Then the set was altered on a trial and error basis until it was consistent with the solutions in respect of the sector. [169]

The crucial point here is that the model "assumed" the share of basic and heavy industries in total net investment (as 33 per cent of total), and did not provide it as a "result" of its (the Model's) solution. This assumption was based on a "conviction", to use Professor Malenbaum's word,[170] that future development would be more assured the more independent the nation was of imported supplies of capital goods. In Professor Mahalanobis's words, "in the long run, the rate of industrialisation and the growth of national economy would depend on the increasing production of coal, electricity, iron and steel, heavy machinery, heavy chemicals, and the heavy industries generally which would increase the capacity for capital formation. One important aim is to make India independent, as quickly as possible, of foreign imports of producer goods so that the accumulation of capital would not be hampered by difficulties in securing supplies of essential producer goods from other countries". He then concluded, "the heavy industries must, therefore, be expanded with all possible speed."[171]

On the question of why the percentage was assumed as "33" in particular, Professor Mahalanobis had this to say: "We adopted the value λ_k (the proportion of investment that should be allocated to industries producing investment goods) = $^1/_3$, **as we felt it would not be possible to go beyond this value under present conditions."**[172] With respect to the relative shares of other sectors which were provided by the model, it is not at all clear why the specific solution shown

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(169) Mahalanobis, **Op. cit.,** p. 51.
(170) See W. Malenbaum, **Prospects for Indian Development, Op. cit.,** pp. 88. See also his excellent analysis of this model, pp. 86-91.
(171) Mahalanobis, **Op. cit.,** p. 92.
(172) Mahalanobis, **Op. cit.,** pp. 40-41, (my italics).

above was actually some "optimum" solution. As R. Kamiya indicated, the Mahalanobis's solution is but one of many possible sets from this same equation system.[173] The task of demonstrating that the model yielded the "best" answers was scarcely pursued in Mahalanobis's work[174].

The data of Table V.19 below leave no doubt that Mahalanobis's work was used by the Planning Commission as basic materials in the formulation process of the Second Plan. The emphasis on basic and heavy industries was not only retained

TABLE V.19

PATTERNS OF INVESTMENT ALLOCATION, BY SECTOR, RELATED TO THE SECOND PLAN

(In Percentages)

Sector	Mahalanobis's Model	Mahalanobis's Plan-frame	Second Plan
1. Basic Investment Goods	33.0	33.0	34.4
2. Factory Consumer Goods	17.4	17.0	18.2
3. Household Indus. & Agricul.	21.1	20.7	20.8
4. Services	28.5	29.3	26.6
Total (%)	100.0	100.0	100.0
Total (Rs. Crores)	5,610.0	5,600.0	6,200.0

Notes : i — All data are for net investment and at 1952/53 prices.
ii — The model and the plan frame (which was called "Draft Recommendations for the Formulation of the Second Five Year Plan") were worked out in 1955 as preliminary work concerning the formulation of the Plan, see Sources.
iii — Item (1) includes power and transport, and Item (3), irrigation and flood control.
iv — The totals of the plan-frame and the Second Plan include stocks of Rs. 500 crores in the former and Rs. 400 crores in the latter. These stocks have not been allocated by sector.

Sources : Mahalanobis, **Op. cit.**, pp. 48-50 ; Planning Commission, **Second Five Year Plan, Op. cit.**, pp. 56-57, and its **Papers Relating to the Formulation of the Second Five Year Plan, Op. cit.**, pp. 59-60 ; and Malenbaum, **Prospects for Indian Development, Op. cit.**, pp. 86-87.

(173) See his "A Note on Professor Mahalanobis' Model of Indian Economic Planning". **The Review of Economics and Statistics**, Vol. XLI, (Feb., 1959), pp. 29-35.

(174) See, e.g., Mukherjee, **Op. cit.**, p. 164, and references cited there. In fact, Professor Mahalanobis did not even spell cut in some detail how the sectoral output-capital and capital-labour ratios (βs and θ s) were estimated. See Mahalanobis, **Op. cit.**

but also enhanced. This emphasis, as just shown, was **a datum and not an answer provided by the model.**

This emphasis on basic and heavy industries was based on a general and vague investment criterion, namely, economic independence. According to the Commission, the elements of such a criterion include considerations of : (1) long-term economic development ; (2) external economies and diseconomies ; (3) foreign and local currencies required and foreign currency saved by the establishment of the project ; (4) amount of indirect employment that may be created ; (5) extent to which national output may be an import-substitute, and (6) the degree to which investment "maximizes" savings. [175]

In 1962, an authority on the subject, I.M.D. Little, gave his qualified support for this general planning strategy. [176] Dr. Little argued that India already made most of the projects of "light industry" ; leaving possible export markets aside, it was not surprising that it was "the heavy side (steel, chemicals, machinery, oil, and general materials, intermediate products, and capital goods) " that was planned to grow fastest. It was the demand for these products, he continued, that was putting the major strain on India's balance of payments. Of course, he asserted, there was in theory the alternative of "conquering export markets" with light products and of orientating Indian industrial investment in this direction. Even taking account of the fact that such industries may be less capital intensive, he concluded, "it seems to me bold, even foolish, to suggest that any large switch away from the present policy of import substitution would be right." [177]

No one would quarrel with Little if there was a "sound" import-substitute policy governing the Second Plan pattern of investment allocation. Evidently, India has a case to develop its heavy industries due to its rich and varied raw-material base, its domestic market and its existing industrial structure. What seems missing in Little's argument is the fact that the em-

(175) Planning Commission, **Second Five Year Plan, Op. cit.**
(176) See his, "A Critical Examination of India's Third Five-Year plan", **Oxford Economic Papers,** Vol. XIV, (Feb., 1962), pp. 18-19.
(177) Little, **Op. cit.**, p. 18.

phasis on heavy industries in the Second Plan was both "excessive" and "indiscriminate" and was made, it appears, without a real assessment of the actual or prospective demand for the products of the new industrial plants. With capital as one of the scarcest resources in India, the case for import-substitution projects must clearly and firmly be established in terms of the size of actual and prospective demand before committing the country's scare resources to such lines of production. This kind of assessment was virtually absent during the formulation of the Plan. The inevitable result of such massive investments in heavy industries, postulated, was almost certain to be a wasteful use of the country's scarce resources in general and the creation of large excess capacity in this sector in particular.

This point is well argued by many economists, particularly Professors P.T. Bauer, C. Vakil and P. Brahmananda.[178] They emphasized that because of low income due to low agricultural productivity combined with existing excess capacity in industry, no market could be expected for the output of heavy industry programme such as that of the Second Plan. The lack of capital goods, they strongly argued, was not the immediate bottleneck to an expansion of industrial output. The real obstacle was the lack of sufficient wage-goods which in effect prevented significant increases in investment and employment. Therefore, a quick expansion of wage-goods would have been the appropriate strategy and maximizing output per unit of investment would have been the appropriate investment criterion.

According to Bauer, Vakil and Brahmananda, this approach to Indian development does not mean an unqualified protection of village and small-scale industries at all costs, nor a total

(178) See P.T. Bauer, **Indian Economic Policy and Development,** (New York : Praeger, 1961), and his **United States and Indian Economic Development,** (Washington : American Enterprise Association, 1959) ; C. Vakil, "Installed Capacity and Present Production Levels", and C. Vakil and P. Brahmananda, "Investment Pattern in Second Five Year Plan", in Planning Commission, **Papers Relating to the Formulation of the Second Five Year Plan, Op. cit. ;** and Vakil and Brahmananda, **Planning for An Expanding Economy** (Bombay : Vora and Co., 1956).

prohibition of investment in heavy industries in any line of production. On the contrary, they regarded the first group of industries as inefficient and suggested helping it, as a temporary measure only, to increase its "competitive efficiency" on a long-term basis. With respect to the second group, they stressed that its growth "should be keyed to the rate of growth of consumer goods industries, and of agriculture", as the sources of the marketable surplus of wage-goods. In other words, the demand for products of heavy industries is ultimately derived from the demand for consumer goods, the demand for which is ultimately derived from the marketable surplus of food and other wage-goods. Thus, it is basically the growing agricultural base which enables indirectly the development of heavy industries. [179]

This planning strategy was by and large ignored in the formulation of the Plan. Instead, the Commission put this emphasis on heavy industries, to quote Professors Vakil and Brahmananda, "... on the basis of arguments which have no support either from facts or from logic valid under conditions facing us here and now, and which derives its justification only from a hasty imitation of the experience of some other country with obviously different economic conditions" [180] As it was, and in contrast with the Egyptian strategy during this phase, the strategy of the Indian Second Plan was excessive and involving high economic and social costs.

With respect to **the financing of the Plan,** total resources required for net investment (Rs. 6,200 crores) were expected to be largely met from the private sector and external sources, as mentioned earlier in this Section. Adding Rs. 1,000 crores as current development expenditure in the public sector did

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(179) This is an over-simplified account of a detailed and complex argument in the works cited in footnote (178).

(180) Vakil and Brahmananda, "Investment Pattern in the Second Five Year Plan", **Op. cit.,** p. 161. See also Bauer, **United States and Indian Economic Development, Op. cit.,** pp. 48 and 75.

not drastically change the order of the relative contributions of the financial sources (private, public and external) to the financing of the total development outlay of the Plan (Rs. 7,200 crores). These contributions were expected to be about 66 per cent, 19 per cent and 15 per cent, respectively.[181]

However, this pattern of finance might not be a problem, if and only if the total resources required would be voluntarily available during the Plan period. This was not just so. The total resources estimated rather optimistically by the Commission were expected to be about Rs. 6,000 crores. The rest (Rs. 1,200 crores) was expected to be met through deficit financing.[182] This was the second major weakness in the Plan structure. This amount of deficit financing anticipated during the Plan period was decided upon against many warnings from expert opinions. Important among them were those of Professor B.R. Shenoy, N. Kaldor and advisory World Bank Mission.[183] They strongly argued that this amount of deficit financing was beyond the capacity of the Indian economy to absorb. It was, they emphasized, "too excessive" and certainly would have "strong" inflationary impact. According to these experts, if this amount was postulated, the almost certain results would be a steep rise in prices, a foreign exchange crisis, and/or an enforced scaling down of the Plan, particularly if one considers the doubtful ability of the village and small-scale industries to produce sufficient consumption goods to "mop up" surplus purchasing power that would be generated by such an amount of deficit financing. They therefore suggested some estimates of what they considered as the level of "safe" deficit financing.[184] Unfortunately, the Commission did not accept

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(181) See Planning Commission, **Second Five Year Plan, Op. cit.,** pp. 77-85.

(182) Planning Commission, **Second Five Year Plan, Op. cit.,** pp. 77-85.

(183) See B. Shenoy, "Note of Dissent to the Memorandum of the Panel of Economists", In planning Commision, **Papers Related to the Formulation of the Second Five Year Plan, Op. cit.,** pp. 21-32 ; and N. Kaldor, **Indian Tax Reform,** (New Delhi : Gov. of India, 1956).

(184) Professor Shenoy put this level as about Rs. 180-235 crores for the five-year period. See Shenoy, **Op. cit.,** p. 28. Kaldor's estimates was about Rs. 800 crores. See Kaldor, **Indian Tax Reform, Op. cit.,**

their advice. This, among other things, led to serious stresses and strains in the economy as early as 1958 which forced the Commission to re-appraise the Plan in that year, as mentioned above (see also Chapter VII).

In his "Note of Dissent..." Professor Shenoy warned the Commission that "to force a pace of development in excess of the capacity of the available real resources must necessarily involve uncontrolled inflation". He then reminded the Commission that deficit financing "... does not create real resources".[185] To such constructive criticisms, the Commission only stated : "It is obvious that the second five year plan will strain the financial resources of the country. A measure of strain is implicit in any development plan for, by definition, a plan is an attempt to raise the rate of investment above what it would otherwise have been". Then it asserted that, "the best defence against inflation is, in a sense, to keep clear of it, but a policy of 'playing safe' is not always conducive to development. A measure of risk has to be undertaken."[186] Nobody would quarrel with these generalizations. The real question is that concerning the "degree of the risk involved" and consequently the "degree of the strain" that the economy could possibly bear without serious drawbacks to the process of economic development itself.

To give an idea about the risks involved in the financial scheme of the Plan, Table V.20 below shows the various sources of finance anticipated in the Plan to meet the development outlay of the public sector.

(185) Shenoy, "Note of Dissent ....", **Op. cit.**, pp. 22 and 27.
(186) Planning Commission, **Second Five Year Plan, Op. cit.**, pp. 81 and 86.

TABLE V.20

FINANCING PUBLIC SECTOR PLANNED OUTLAY

Source	Expected Financial Resources Total	%
1. Public Sector Savings		
i—Surplus from Current Revenue	800	16.7
ii—Surplus from Railways	150	3.1
2. Domestic Borrowings		
i — Surplus from Current Revenue	800	16.7
ii — Small Savings	500	10.4
iii — Unfunded Debt & Miscellaneous Capital Receipts	250	5.2
3. Deficit Financing	1,200	25.0
4. External Assistance	800	16.7
Gap	400	8.3
Total	4,800	100.0

Notes: i — All data are at 1952/53 prices.
ii — The gap was expected "to be covered by additional measures to raise domestic resources". See sources.

Sources: Planning Commission, **Second Five Year Plan, Op. cit.,** pp. 77-78; and its **Second Five Year Plan: Progress Report, 1958/59, Op. cit.,** p. 21.

From these data, it is obvious that not only was deficit financing expected to be sizable but it also was planned to be the largest source. Furthermore, the over-all burden of financing this public outlay on the private sector's resources was excessively heavy. Expected public sector savings relatively declined from more than a third of total resources required in the First Plan (Table V.6) to less than a fifth in the Second. Also, the relative contribution of the Indian public sector to the

financing of its expected outlay in the Second Plan was much less than those of the Egyptian public sector in the first and the second planning phases (Tables V.3 and V.12). Compared with the finance patterns of the First Plan and the Egyptian first and second phases, as shown in the tables just mentioned, this pattern seems to be excessively inflationary and too risky.

These are the salient features of the Second Plan. As in the First Plan, the Commission outlined the aims, objectives and **general policy measures** for every economic activity. Though this part of the Plan was quite lengthy, it was on the whole general and rather vague.

Guided by the Industrial Policy Resolution of 1956, outlined in Chapter IV, the Commission stated the order of industrial priorities as : (1) increased production of iron and steel and of heavy chemicals, including nitrogenous fertilizers, and development of the heavy engineering and machine building industries ; (2) expansion of capacity in respect of other "developmental commodities" and producer goods such as aluminium, cement, chemical pulp, dyestuffs and phosphatic fertilizers ; and of essential drugs ; (3) modernization and re-equipment of "important national industries" in existence, such as jute and cotton textiles and sugar ; (4) fuller utilization of existing installed capacity in industries "where there are wide gaps between capacity and production" ; and (5) expansion of capacity for consumer goods keeping in view the requirements of common production programmes and the production targets for the decentralized sector of industry (cottage industries). [187]

After emphasizing the role of the public sector in industrial development particularly in the field of heavy industries, according to the 1956 Resolution, the Commission suggested that "in the rest of the economy conditions have to be created in which there is full scope for private initiative and

(187) Planning Commission, **Second Five Year Plan, Op. cit.**, pp. 393-94. For more information, see the same source Chapters II, XVIII and XIX.

enterprise either on an individual or on a co-operative basis".[188] Monetary, fiscal, commercial, licensing and price policies were all suggested devices in the hands of the government, by which it could assist and influence the development activities of the private sector along the desired lines.[189] With respect to village and small-scale industries, the Commission repeated all the general measures suggested in the First Plan, as outlined in Section I, and emphasized that this sector had to be organized more and more on co-operative lines so as to enable the small producer to secure the advantages of the large one. Important among them were : buying raw materials and selling his products on a large scale, getting access to institutional credit, utilizing improved methods and techniques, etc. The Commission stressed that "it is the promotional rather than the protective aspect of policy which has to become more and more important in the adaptation and reorganisation proposed in this sector".[190]

In agriculture, the Commission's measures for increasing agricultural production in the First Plan, mentioned in Section I, were further detailed and developed in the Second. According to the Commission, the principal task was conceived as a structural re-organization of the agricultural sector and its production modes. At the village level, co-operatives and **panchayats** were to be the principal institutions through which such re-organization was to be carried out. The pattern of organization aimed at had been expressed as "co-operative village management." Two major reforms were postulated as the basis for this organization, namely, land reform programmes and production (methods) reform programmes. The first included the completion of abolishing intermediaries (began during the First Plan), tenancy reforms, regulation of rents, limiting the size

(188) Planning Commission. **Second Five Year Plan, Op. cit.,** p. 23. See also Chapter IV.
(189) Planning Commission, **Second Five Year Plan, Op. cit.,** pp. 392-411.
(190) Planning Commission, **Second Five Year Plan, Op. cit.,** p. 32. For details, see Chapter XX in the same source.

of holdings (by fixing ceilings) and redistributing the excess between small landowners and landless cultivators — with compensation paid to old owners and price recovered from new ones.(191) The second reform included consolidation of small holdings, land management practices and co-operative farming. At the district level, community development and extension services were planned to cover the entire rural areas during the Plan period. In the Commission's words, "extension services and community development projects are primarily an agency for fulfilling the aims, policies and programmes envisaged in national and State plans in terms of the needs, problems and resources of each local area", (192) These projects were considered as the link between the village and the Centre.

However, these measures in general and the proposals for land reform and co-operative development in particular were expressed in general terms as a broad common approach to be adapted and pursued in each State as part of the national Plan with due regard to local conditions and in response to local needs. No quantitative data or specified targets concerning most of these suggested reforms were provided. This agricultural development strategy was aimed at increasing agricultural productivity through: irrigation facilities, better seeds, fertilizers, improved techniques of cultivation, re-organization of the size of the production unit, agricultural credit, etc.(193)

Finally, after working out the Plan pattern of investment and its finance together with these general policy measures in view of the basic objectives and targets, the Commission roughly assessed its **detailed targets in terms of physical and financial national output and employment** by the end of the Plan period.

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(191) Planning Commission, **Second Five Year Plan. Op. cit.,** p. 197. For details, see the same source, pp. 177-98.

(192) Planning Commission, **Second Five Year Plan, Op. cit.,** p. 236 For more information, see the same source, pp. 221-45.

(193) For more but rather general information on this point, see planning Commission, **second Five Year Plan, Op. cit.,** pp. 61-66, 148-63, 177-232, 235-51 and 273-76. Important questions such as costs and administration were rarely or loosely discussed.

Physically, the Commission estimated the expected effects of the national development efforts envisaged in terms of certain select targets and indices of production. These estimates are shown in Table V-A-12, in Appendix A below. However, no information as to how these targets and indices were estimated was provided. The sum total of developments in various fields is naturally reflected on the growth of national income. On the basis of an estimate of national income by industrial origin in the base year and in view of these targets and indices of physical production, the Commission worked out the likely relative shares of various sectors of the economy in the targeted national income in the end year of the Plan. Again, any precise account on the conversion of national income target to sectoral targets is completely absent in the Plan document. Table V.21 shows the anticipated growth of national income by sector by the end year of the Plan.

TABLE V. 21

PLANNED CHANGES IN NATIONAL INCOME, BY INDUSTRIAL ORIGIN

(In Rs. crores)

Industrial Origin	National Income		% Increase Over Plan (1956-1961)	Sectoral Contribution to Total Change
	Base Year, 1955/56 (Actual)	End Year, (Planned) 1960/61		
1. Agriculture & Allied Pursuits	5,230	6,170	18	25
2. Mining	95	150	58	2
3. Factory Establishments	840	1,380	64	20
4. Small Enterprises	840	1,085	30	9
5. Construction	220	295	34	3
6. Commerce, Transport & Communications	1,875	2,300	23	16
7. Professions & Services	1,700	2,100	23	15
Total	10,800	13,480	25	100

Note : All data are at 1952/53 prices.
Source : Planning Commission, **Second Five Year Plan, Op. cit.,** p. 73.

From this table, one can see that despite the anticipated substantial increases in net outputs of mining and factory establishments, the structure of the economy was expected to change only marginally during the period of the Plan. The share of agriculture in total national income was expected to decline from about 48 per cent in 1955/56 to about 46 per cent in 1960/61, and that of mining and factory establishments, to increase from 9 per cent to 11 per cent in the two years, respectively. This, as the Commission indicated, might partly explain the relative emphasis on industrialization during this period and the need for continuing such emphasis during subsequent periods. On the other hand, it indicates the relative returns to investments in both sectors, (see Tables V. 14 and V. 19 above), and consequently points out the "undue" emphasis on basic and heavy industries.(194)

With respect to the employment problem, the Commission regarded its solution as a long-term task. According to the Commission, this task was : (1) to provide employment for the existing unemployed persons in the urban and rural areas, estimated at about 5.3 million in 1955/56 ; (2) to provide employment for the new entrants to the labour force, estimated at about 10 million during the Plan period ; and (3) to ease under-employment in the agricultural and household occupations by increasing work opportunities.(195) The Commission envisaged the objective of the Plan in this respect as to prevent the 1955/56 unemployment situation from deteriorating during the Plan period. Accordingly, the minimum requirement of employment opportunities was put at about 10 million jobs, besides somewhat easing the under-employment situation.(196) This national target was worked out by the Commission on the basis of employment data supplied by States and Central Ministries and "on the basis of physical targets proposed for the private sector with certain assumptions regarding productivity increases".(197) The

(194) For comparable data for the First Plan, see Table V.7 above. This point will be further discussed during our examination of the Plan Performance in Chapter VII.
(195) Planning Commission, **Second Five Year Plan, Op. cit.,** pp. 109-12.
(196) Planning Commission, **Second Five Year Plan, Op. cit.,** p. 118.
(197) Planning Commission, **Second Five Year Plan, Op. cit.,** pp. 114-15.

Commission did not specify what these assumptions were. However, the results of the Commission's work on sectoral employment targets are summarized in Table V.22 below. These targets are going to be examined against the actual performance of the Plan in this respect, in Chapter VII.

TABLE V.22

EXPECTED ADDITIONAL EMPLOYMENT, BY INDUSTRIAL ORIGIN

(In Mns.)

Industrial Origin	Employment Opportunities
1. Agriculture & Allied Pursuits	2.013
2. Irrigation & Power	0.051
3. Transport & Communications	0.433
4. Organized Industries & Minerals	0.750
5. Construction	2.100
6. Cottage & Small-scale Industries	0.450
7. Education, Health & Other Social Services	0.568
8. Government Services	0.434
9. Others (including Trade & Commerce)	2.704
Total	9.503

Source : Planning Commission, **Second Five Year Plan, Op. cit.,** pp. 115 and 118.

From the foregoing discussion on the Indian Second Five Year Plan, one can see the basic principles underlying its size, its investment pattern of allocation and its scheme of finance. Its strategy was based upon "over-emphasis" on industrialization in general and on heavy industries in particular, with deficit financing as a major device for mobilizing resources. This discussion is not intended to demonstrate that India should not industrialize or should not develop her heavy industries. As mentioned above, India has a case in this respect due to its varied raw-material base, the size of its domestic market, etc. But in face of strong possibilities of imports, what was objectionable with regard to the strategy of the Plan was the excessive shift during such a short time towards these lines of investment. In face of limited financial and other resources, this shift would most certainly lead to misuse of these resources as well as to dangerous inflationary pressures. The crucial question of why such a development had to be accomplished within a period of 5 to 10 years was not even touched by the Commission. Nor had the Commission really asked itself the equally crucial question of why, once the possibility of imports was recognized, not increase the period for establishing and developing such lines to, e.g., 30 or 40 years.

From planning activities in Egypt and India during this phase, just outlined, one can see many similarities as well as basic differences between the two experiences. Similar shifts of emphasis were made in both cases. Important among them were the shift of emphasis from agriculture in the first phase to industry in this phase, and from the role of the private sector to that of the public sector, in the development process. These shifts however were rather excessive in the Indian case compared with those in the Egyptian, as detailed above. Examples of basic differences were apparent with respect to the industrial strategies adopted as well as the patterns of finance postulated. Regarding the first example, the "undue" emphasis on basic and heavy industries in the Indian case relative to that in the Egyp-

tian needs no repetition. As for the second, while the Egyptian financial scheme was conventionally and cautiously planned, the Indian was loosely and rather dangerously sought — with deficit financing as a major source.

On the whole, during this phase, the Egyptian strategy seems to be more modest and more balanced than the Indian. Self-sufficiency, import-substitution, export promotion, etc., as general investment criteria seem to have been used more sensibly in the Egyptian case than in the Indian. The Indian planners appear to have considered "economic independence" as the most important criterion. In general, while the Indian planners were "over-bold" during this phase, the Egyptian planners were "over-cautious".

With respect to planning methods, the Indian aggregate long-term growth model and Mahalanobis's allocation model were essentially similar to those used in the Egyptian case during this phase. (198) Such models were of the Harrod-Domar type. As mentioned in Chapter I and II, this type of models originally evolved for analysis of advanced economies and concerned itself with the problem of maintaining "adequate" levels of effective demand. The basic difference between the uses of this type in mature economies and in developing economies as the Indian and the Egyptian is that whereas Harrod-Domar model "proper" attempts to determine what rates of investment and income growth are required to maintain "full employment" under conditions of a constant marginal propensity to save, Indian and Egyptian versions attempt to determine how much investment is required to raise employment and income to pre-determined levels.

In as much as the existing marginal propensity to save could not be readily raised because of existing low levels of income, the planners sought to increase national income by investment expenditures (199) and then anticipated a rising marginal propen-

(198) They were also similar to those adopted in the two cases for the first phase. See this Chapter, Section 1.

(199) This is similar to an injection of new money into the income stream in the state of depression in a developed economy.

sity to save out of higher levels of income. In other words, the Egyptian and the Indian planners assumed a functional relationship between investment and the growth of income and a similar relationship between the growth of income and savings.

However, this type of model ignores changes in the size of the labour force and therefore ignores the possible contributions to output of an expanding labour force. Furthermore, it ignores the influence of the state of technology on production. These considerations are very important in the analysis of at least densely populated underdeveloped countries like India and Egypt. For example, the resource endowments of these countries (abundant labour and scarce capital) are such that certain investment projects should use labour-intensive means of production, even though the average and marginal productivities of labour are very low.

The global character of such models and their underlying assumption that capital is the decisive variable neglect the problem of complementary and auxiliary resources. Apart from capital, failure of complementary resources to expand in supply may act as a serious impediment to the growth of output. Furthermore, the multiplicity of factors governing the economic mechanism in an underdeveloped country, detailed in Chapter I, makes the basic assumptions of the Indian and the Egyptian models regarding the relationships between investment and income and between income and savings not at all self-evident as considered by the planners. Our comments in this Chapter above, on the arbitrary nature of the aggregate capital–output ratios assumed, need no repetition.

One is reminded of Domar's comments on a Soviet plan called Kovalenskii's plan which was based on a model put forward in the late twenties by a Soviet economist (G.A. Fel'dman) which was in some ways similar to those used by the Egyptian and Indian planners. He stated : "Perhaps its authors did not see that from a model like Fel'dman's, **almost any rate of growth could be derived on paper,** provided capital co-efficients were low enough or the propensity to save high enough. They certainly

failed to realize that **these parameters particularly the capital co-efficients, were abstractions,** useful (I trust) in theoretical work, but full of innumerable and well-hidden implications regarding the actual working of the economic mechanism, and that **the whole problem of economic development lies not in the algebraic manipulations** which Fel'dman carried out in such detail, but in overcoming the immence administrative, technological and **human obstacles which a rapid industrialization of a backward peasant economy was bound to create".** [200]

In short, the usefulness of such models is considerably reduced when one takes into account the various factors and objectives underlying the development process. However, as long as the planners are aware of the enormous limitations of such models, these devices could serve as a broad and rough framework within which the task of "filling up" the detailed targets is carried out through the commonly used method of trial and error, as discussed in Chapter II. This in effect was the normal practice in India and Egypt during the period under discussion.

The **rationale** of each country's planning strategy, methods and detailed objectives and targets are going to be evaluated against the actual results achieved, in Chapter VII. But before this, our discussion on planning outline and strategy continues in the next Chapter to cover the second part of the two experiences, i.e., planning in the 1960's or the third and fourth phases.

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(200) See D. Domar, **Essays in the Theory of Economic Growth, Op. cit.,** pp. 256-57, (my italics). For more information on these models and their limitations, see Chapters I and II and references cited there.

CHAPTER VI

PLANNING OUTLINE AND STRATEGY, PHASES III & IV

The objective set by the Egyptian people, through the revolution, to double their national income, at least once every ten years, was not a mere slogan. It was the result of calculating the amount of the force required to face underdevelopment and rush for progress, keeping in mind the increasing rise of the population.

Gamal Abd-El-Nasser, **The Charter,** (1962).

Some people may ask, 'Why such a big plan? Have a small plan.' There are certain minimum objectives that we have to reach. There is no escape from them. Though from the point of view of the advancement of India the Plan is not very big, yet from the point of view of our resources it is big undoubtedly, and it requires a tremendous effort on our part to raise these resources and to work hard to achieve our aims.

Jawaharlal Nehru, **Speech in the Lok Subha initiating the discussion on the Draft Outline of the Third Five Year Plan,** (August 22, 1960).

Compared with the first two phases, discussed in Chapter V, the third and the fourth phases of Indian and Egyptian planning experiences were more systematic and more comprehensive as well as more ambitious. Long-term perspectives of 20 to 30 years were replaced by long-term plans of 10 to 15 years

which were more quantitative, more detailed and technically more refined. The basic objective of these plans was the achievement of "a self-reliant and self-sustained economy". Changes in planning objectives, strategies, patterns of priorities, patterns of finance, methods of formulation, organization, etc., from phase to phase during this part of the two experiences were on the whole marginal, as will be discussed below.

I — THE THIRD PHASE

This planning phase covers the Third Five Year Plan in India (1961/62-1965/66) and the First Five Year Plan in Egypt (1960/61-1964/65). In each case, the basic strategy, pattern of priorities and planning methods of this phase were essentially a continuation and intensification of those of the second phase. Planning however was more systematic and more comprehensive as well as more ambitious.

In both cases, though the vital importance of agricultural development was recognized, a greater emphasis was put on industrialization. But, as in the second phase, while the Egyptian industrial strategy was more consumer-goods oriented, the Indian was essentially a basic-and-heavy-industries one. However, in the latter case an emphasis on industries which meet the development requirements of agriculture was made. In both cases, while the role of the private sector in the development process was acknowledged, a growing role for the public sector was strongly postulated. This was particularly so in the Egyptian case than in the Indian. However, the importance of "co-operation" between the two sectors was also stressed.

In finance, though dispensing with external assistance was considered by the planners in both countries as an important but raher long-term objective, this source was regarded as all important and indispensable during this phase. Deficit financing

(in the form of creating new money), unknown as a source in the Egyptian case, was considerably reduced in the Indian case — compared with the amount planned for the second phase.

In both cases, there was emphasis on the interrelations between agricultural and industrial developments, between national and regional developments and between economic and social developments, as will be mentioned below.

Against the basic objective of achieving a self-reliant and self-generating developing economy, three types of plans were formulated in each country. The first type which was based on a simple aggregate growth model was the long-term plans. In the Indian case, the long-term plan was a 15-year plan for the period 1961/62-1975/76. In the Egyptian case, it was a 10-year plan for the period 1960/61-1969/70. The second type which was based on a simple aggregate allocation model was the medium-term plans. In both cases, these plans were five-year plans. The third type was the annual plans. These plans were drawn up yearly in the context of the five-year plans. The agency which was responsible for the formulation process was the Planning Commission in India and the National Planning Commission in Egypt. Details of planning organization during this phase (and the next phase) in Egypt and India are shown in Charts VI-C-1 and VI-C-2, respectively, in Appendix C below.

In the Indian case, the basic planning document was that of the five-year Plan. In the Egyptian case, it was that of the annual Plan for each year of the five-year period. In contrast with the Indian Planning Commission, the Egyptian Planning Commission did not specify in the five-year Plan document several important planned variables such as the relative shares of the public and the private sectors in total planned development outlay, and the expected relative contributions of various domestic sources of the financing of this total outlay. Nor did the Commission spell out the policy measures needed for the implementation of the Plan. In effect, the five-year Plan con-

sisted of an investment programme plus some detailed forecasts and targets of production, exports, imports, consumption, etc., based on the assumed automatic responses of enterprises and households as influenced by "future" but unspecified policies. These unspecified variables and policies were left to be determined in the annual Plans and the annual State budgets.

In this respect, the Egyptian planning activities during this phase may be described as being more flexible than the Indian. However, this advantage is in fact apparent than real as there were Indian annual plans, during this phase,(1) which were expected to perform their operational tasks of adjusting and revising the planned variables according to circumstances and in the context of the five-year Plan. But, as these annual plans were not published and there is no detailed information about them in the Indian Commission's publications, the following discussion will be confined to the long-term and medium-term plans of this phase.(2)

In each case, **the long-term plan** targets of investment and income aimed at had been projected from a simple aggregative model for the economy as a whole essentially similar to those used in the Indian first two phases and the Egyptian second phase,(3) discussed above. However, in both cases, these long-term

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(1) See Planning Commission, **Fourth Five Year Plan, Op. cit.,** p. xiii ; and its **The Third Plan. : Mid-term Appraisal,** (New Delhi, Nov., 1963), pp. 1-5 and 7-15.

(2) The Egyptian annual plans will be referred to only to cover the information gap in the five-year Plan document such as the expected shares of the public and the private sectors in total planned development outlay and the expected source of finance as will be detailed below.

(3) In fact, the perspectives worked out by Dr. Deif and others, discussed in Chapter V, Section II, were tentative 20-year projections related to this phase, a more refined version of which was submitted by the National Planning Commission to the Supreme Council of National Planning in 1959. The latter suggested a radical change in the submitted perspective, namely, to change the period required for «doubling the national income» from 20 years to 10 years. Accordingly, the long-term (10-year) plan under discussion was formulated. See United Arab Republic, the National Planning Commission, «A Draft of the General Plan for the Economic Development of the Egyptian Region of the United Arab Republic : 1958-1978», **Memo. No. 99,** (Cairo, Dec., 1958), (in Arabic), pp. 1-7 ; and its **General Frame of the Five Year Plan for Economic and Social Development : July 1960 — June 1965**, (Cairo, 1960), (in Arabic), pp. 5-18.

plans were more quantitative and more detailed. They were also shorter in time-horizon and more ambitious in objectives. Though technically more refined and statistically more reliable, their data were naturally still tentative and conjectural.

The Indian and the Egyptian planners formulated these aggregate plans to serve as longer perspectives for the medium-term plans. According to the Indian projection, national income in the base year (1960/61) of Rs. 14,500 crores was expected to increase by about 128-134 per cent by the end year (1975/76) at 1960/61 prices. In other words, national income was expected to rise to about Rs. 33,000–34,000 crores in 1975/76 at constant prices. With total population expected to increase from about 438 million in 1960/61 to about 625 million in 1975/76 (an increase of more than double that anticipated according to the Second Plan perspective), per capita income was expected to increase from Rs. 330 in 1960/61 to about Rs. 530 in 1975/76 at 1960/61 prices, (an increase of about 60.6 per cent).

The Egyptian projection was shorter in time and more ambitious in objectives than the Indian. According to this projection, national income in the base year (1959/60) of L.E. 1,282 million was expected to be doubled by 1969/70 at 1959/60 prices. With an expected increase in total population of about 6 million, from about 25.7 million in 1959/60 to about 31.7 million in 1969/70, per capita income was expected to increase from about L.E. 50 in 1959/60 to about L.E. 81 in 1969/70 at 1959/60 prices — an increase of about 62 per cent.

Total investment required to attain these income targets was estimated to be about Rs. 52,500 crores for the 15-year period in the Indian case and about L.E. 3,533.9 million for the 10-year period in the Egyptian. This means that the over-all incremental capital–output ratio was expected to be about 2.84 : 1 in the Indian case and about 2.76 : 1 in the Egyptian. As the Egyptian total planned investment was gross of replacement and deprecia-

tion while the Indian was net, the Egyptian ratio was in effect appreciably lower than the Indian. In both cases, total planned investment for the whole period was however estimated in five-year assignments ; and consequently five-year income targets were obtained. The first five-year period data were obtained from detailed calculations of the anticipated increases in net output in individual sectors, largely on project-basis. The data of the other five-year periods were just illustration of the possible expected trends in the light of the information available.[4]

Table VI.1 below summarizes the base year data and the main assumptions and targets of the Indian and the Egyptian long-term plans. From this table, one can see that national investment rates were expected to gradually increase from about 11 per cent to about 20 per cent over a 15 - year period in the Indian case and from about 16 per cent to about 25 per cent over a 10 - year period in the Egyptian. With both countries aiming at gradual financial independence in the sense of achieving a self-reliant and self-generating developing economy, with practically no foreign aid during the latter years of their projections, and with both countries facing numerous economic difficulties at the beginning of this phase (see Chapter VII), these investment rates seem to be too ambitious. Consequently, so do the national income targets.

For a shorter period, the Egyptian rates seem to be more ambitious than the Indian. However, if one makes allowance for the fact that the Egyptian investment data were gross of replacement and depreciation,[5] the differences between the

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(4) See the National Planning Commision, **General Frame of the Five Year Plan . . . , Op. cit.,** p. 18, and M. El-Imam, **Planning for Economic and Social Development,** The Institute of Advanced Arabic Studies, (Cairo, 1963), (in Arabic), pp. 31-53, for Egypt ; and Planning Commission, **Third Five Year Plan, Op. cit.,** pp. 27-29 and Gov. of India, Ministry of Information and Broadcasting, **Problems in the Third Plan : A critical Miscellancy,** (Delhi, 1961), particularly the paper by V.V. Bhatt, «Capital-Output Relationship», pp. 108-10, for India.

(5) Replacement and depreciation were probably about 25 per cent of the total. See Chapter V, and references cited there.

Indian and the Egyptian rates may be more apparent than real. In fact, considering the levels of per capita income in both cases, among other things,[6] the Indian rates may turn out to be more ambitious than the Egyptian. However, in both cases, the rates assumed for these plans were decidedly very high, relative to the two countries' resources and in comparison with the rates postulated in their previous perspectives. In 20-year perspectives related to the second phase, a 17 per cent in the Indian case and a 22 per cent in the Egyptian were the investment rates aimed at by the end years of these perspectives, as outlined in Chapter V.

Arguing that the rates postulated in their respective long-term plans were not "unattainable". the Indian and the Egyptian planners suggested that to achieve these rates it was necessary to call for intensive and continuous effort to utilize "fully" the manpower resources, to make the "most efficient" use possible of resources available for investment, to mobilize domestic savings and to channel them into "appropriate" directions, and to secure "adequate" surpluses from internal production for expanding exports. On the crucial question of how to carry out all these fundamental measures, the planners were completely silent.[7] No doubt, they were right in their suppositions, but they had no suggestion as to how these could be done without using methods comparable to those employed by totalitarian societies.

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(6) See Chapters III and VII.
(7) See the National Planning Commission,, **General Frame of the Five Year Plan ..., Op. cit.,** pp. 5-18, for Egypt ; and Planning Commission, **Third Five Year Plan, Op. cit.,** pp. 20-30, for India.

TABLE VI.1

LONG-TERM DEVELOPMENT PLANS FOR THE INDIAN AND THE EGYPTIAN ECONOMIES

Item	Base year (Actual)		Five-Year Periods of the Plans				
			I		II		III
	India (1960/61)	Egypt (1959/60)	India (1961-66)	Egypt (1960-65)	India (1966-71)	Egypt (1965-70)	India (1971-76)
I — End Year Data							
1. National Income	14,500	1,282	19,000	1,795	25,000	2,564	33-34,000
2. Investment as % of N. Income	11	16	14-15	20	17-18	24-25	19-20
3. Total Population (in Mns.)	438	25.7	492	28.7	555	31.7	625
4. Per Capita Income (in National Currency Units)	330	50	385	62.6	450	80.8	530
II — Period Data							
5. Total Investment	1,595	203.9	10,500	1,696.9	17,000	1,837	25.000
6. Capital-Output Ratio	2.8:1	3.0:1	2.3:1	3.3:1	2.8:1	2.4:1	2.8-3.1:1
7. Average Annual Rate of Population Growth	2.15	2.45	2.33	2.56	2.56	2.09	2.52

Notes : i — The monetary data are at 1960/61 prices for India, and at 1959/60 prices for Egypt.
ii — The Indian investment data are net and the Egyptian data are gross of replacement and depreciation.

Sources : For India, Planninog Commission, **Third Five Year Plan, Op. cit.**, pp. 27-28, 32 and 35; and for Egypt, the National Planning Commission, **General Frame of the Five Year Plan...., Op. cit.**, pp. 14-18, and United Arab Republic, Ministry of Planning, **A Draft of the General Trends of the Second Five Year Plan for Economic and Social Development, 1965/66-1969/70,** (Cairo, Feb., 1964), (in Arabic), pp. 81-82.

From this table, one can see that the postulated capital-output ratios in the Indian and the Egyptian long-term plans were very much lower than those assumed for the perspectives of the second phase, (see Chapter V, particularly Tables V.9 and V.13). However, while the Indian planners assumed that national capital-output ratio would on the whole increase from period to period, the Egyptian planners envisaged that it would drastically decline.

As in the second phase perspective, the Indian assumption was based on the idea that the ratio would increase as the economy grew mainly due to more investment in basic and capital-goods industries. This might be so. But, the values suggested for the ratios of the three five-year periods of the plan seem to be very low. These values probably grossly understated capital-output relationships in the Indian economy mainly for two reasons : (1) investment in the non-corporate sector in fixed capital as well as in inventories was probably under-estimated ;[8] and (2) non-monetized investment was not included in the estimates of total investment.

On the other hand, the Egyptian assumption was based on the idea that a sizable part of investment activity expected during the first period of the plan[9] would start or substantially increase its contribution to national output during the second period. No further information on this statement was provided. Excluding replacement and depreciation provisions (as in the Indian case), the net capital-output ratios assumed for the two periods of the plan would be appreciably lower than their already low values suggested in the table. Neither past experience in the Egyptian economy (see Chapters III and VII), nor the proposed investment patterns during the plan period, as will be discussed below, justify these low levels.

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(8) See Planning Commission, **Third Five Year Plan, Op. Cit.,** pp. 27-29 ; and Ministry of Information and Broadcasting, **Problems in the Third Plan . . . , Op. cit.,** p. 110.

(9) This part included the High Dam, land reclamation and a good number of the industrial projects planned. See the National Planning Commission, **General Frame of the Five Year Plan . . . , Op. cit.,** pp. 7-18.

The only possible explanation may be that being firmly instructed to plan for a very high rate of growth in national income (about 7.2 per cent per annum for the 10-year period), the Egyptian planners either heavily relied upon other factors besides capital as an important additional way to increase national output, or just assumed away most of the planning problem by using very low capital-output ratios. In a recent study of the first five-year period of the plan, a research group in the Institute of National Planning found that, according to the estimates of the National Planning Commission for this period,[10] the net incremental capital-output ratio postulated was 1.8:1. The group then concluded that : "Whatever the reason may be the value of 1.8:1 for capital-output ratio in the U.A.R. is not reasonable ".[11] In fact, it was totally unrealistic. This remark is even more valid with respect to the ratio assumed for the second period of the plan, as will be seen from Section II of this Chapter.

With respect to the average annual rates of population growth postulated, item (7) in the table, the Indian projection seems to be more realistic than both the projection for the second phase perspective (Table V. 13 above) and the Egyptian projection. The Indian planners assumed throughout the 15-year period rates over 2 per cent. The expected rate increased from 2.15 per cent in the base year to 2.56 per cent during the second five-year period of the plan. However, the Indian planners adopted a lower rate for the third period (2.52 per cent). A possible explanation may be that the Indian planners might have taken into consideration the forthcoming effects of "family planning" efforts suggested during the period of the plan. However, serious doubts about the early effects of this policy were not at all unknown. Mr. C. Chandrasekaran strongly

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(10) See the National Planning Commission, **General Frame of the Five Year Plan....**, **Op. cit**

(11) The Group of Model Building: A. Seoudi, A.K. Hamza, N. Zaki, R. Soliman, G. Abd-El-Khalek and M. Wahby, supervised by M. El-imam, "Application of Some Models for Planning". The National Institute of Planning, **Memo. No. 587**, (Cairo, June, 1965), p. 20.

pointed out that, "the setting up of targets for birth-rate decline is extremely hazardous in situations, as at present in India, where the birth-rate has been very resistant to change".[12] With a declining death rate,[13] the possibility of achieving a declining rate of population growth by 1971-76 is very slim, indeed.

On the other hand, the Egyptian population projection was totally unrealistic. The Egyptian planners assumed that the average annual rate of population growth would decline from 2.45 per cent in the base year, to 2.33 per cent during the first period, and to 2.09 per cent during the second period. This was expected to happen during a mere 10 - year period, with virtually no family planning policy.[14] No reasons were given for this unrealistic projection. Compared with that suggested for the second phase perspective, outlined in Chapter V, this projection grossly underestimated the population problem. This fact was soon discovered during the early years of implementing the first five-year part of the plan. The actual average annual rate of population growth during the first three years (1960/61-1962/63) was about 2.8 per cent.[15]

These understimations of capital coefficients and population growth in the Egyptian plan adversely affect the planned estimates of national and per capita incomes and render them as overstated. However, one should not over-emphasize these defects as long-term projections are by and large very rough and conjectural. On the other hand, the usage of medium and annual plans in both countries lends greater precision, through revising and adjusting according to circumstances, to these long-term projections, as will be seen below.

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(12) See his paper "Family Planning", in Ministry of information and Broadcasting, **Problems in the Third Plan. . . ., Op. cit.,** p. 112.

(13) See Chandrasekaran, **Op. cit.,** p. 111.

(14) Until 1962, the government attitude to this line of policy was relatively passive. Since then the government recognized the need for such policy. See Abd-El-Nasser, **The Charter, Op. cit.,** p. 53.

(15) Ministry of Planning, **A Draft of the General Trends of the Second Five Year Plan. . . ., Op. cit.,** pp. 47-48. See also Table VIII-A-45, in Appendix A below.

Besides these aggregate data, the Indian and the Egyptian planners roughly attempted to assess some important targets of their respective long-term plans, by industrial origin. Table VI-A-13 in Appendix A below shows the Indian attempt at estimating some tentative targets of capacity for some important items, in physical terms, for 1970/71. Table VI-A-14 in the same appendix presents the Egyptian effort to estimate the sectoral allocation of total planned investment during the 10-year period of the plan as well as to estimate the sectoral targets in terms of gross output, value added and employment aimed at in 1969/70. This attempt seems to be more refined and comprehensive than the Indian. The main point of this sectoral projection is that industry and agriculture were expected to change places with respect to the sectoral contributions to national income by the end year of the plan (1969/70), with the industrial contribution increasing from 21 per cent in 1959/60 to about 31 per cent in 1969/70, and the agricultural contribution declining from 31 per cent to 24 per cent, respectively. Apart from stating that these data were "just illustration of the possible expected trends", the Egyptian planners did not reveal anything about the bases of their calculations.[16] Though useful as very rough indicators of the general pattern of development hoped for, such data in both cases were more in the nature of "guessestimates" than of serious projections.

The first part in each country's long-term plan was then formulated in detail as **five-year plan.** As shown in Table VI.1 above, according to the Indian five-year plan (the Third Five Year Plan), national income was expected to rise to about 31 per cent of its base-year level by the end year at constant prices. According to the Egyptian five-year Plan (the comprehensive First Five Year Plan), the rise expected was about 40 per cent. The reasons, if any, advanced by the Indian and the Egyptian planners for these planned high rates of growth were not at all clear, as mentioned above.

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(16) The National Planning Commission, **General Frame of the Five Year Plan. . . ., Op. cit.,** p. 18.

However, the Indian planned increase in national income was expected to be brought about by a total net investment of about Rs. 10,400 crores over the five-year period. Consequently, the rate of investment was expected to rise from about 11 per cent of national income in the base year (1960/61) to about 14 per cent of national income in the end year (1965/66). With Rs. 1,200 crores anticipated as current outlay, total development outlay was expected to be about Rs. 11,600 crores. Ambitious as it was, this total outlay fell short of the financial requirements of the physical programmes included in the Plan. These requirements were estimated by the Planning Commission to be about Rs. 12,400 crores.[17] According to the Commission if these resources could be mobilized and consequently "all the physical programmes" were implemented, the percentage increase in national income would be about 34 per cent instead of 31 per cent. However, on the question of how this gap was going to be bridged (assuming that the lower limit of resources of Rs. 11,600 crores was attainable), the Commission was hopeful rather than concrete.[18] To formulate a flexible plan is one thing, but to formulate an infeasible one is totally another. In view of inflationary pressures and shortages of basic necessities prevailed at the beginning of this phase (see Chapter VII below), putting an upper limit of resources, which was determined by unrealistic physical targets, beyond the country's financial capacity was in fact a defeatist planning approach.

In the Commission's own words, "the resources position for the Third Plan . . . is inevitably a strained one".[19] The Commission then tried to explain away the puzzling gap between the expected financial resources and the total financial resources required for the physical programmes and to get out of this

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(17) Planning Commission, **Third Five Year Plan, Op. cit.,** pp. 56 and 85-88.

(18) In this respect, the Commission had only very general remarks to make, such as: "With greater effort in mobilising resources which is envisaged, it is hoped to reduce, and, if possible, to eliminate this gap." See Planning Commission, **Third Five Year Plan, Op. cit.,** p. 75. See also p. 90 in the same source.

(19) Planning Commission, **Third Five Year Plan, Op. cit.,** p. 115.

"do-it-yourself" dilemma by saying that, "some shortfalls in expenditure may be unavoidable, and part of the outlays corresponding to the physical programmes that have been approved may spill over into the Fourth Plan".[20] So, the Indian attempt at physical planning was certainly hesitant and confusing, if not abortive. And for all practical purposes, the only total financial-resources target postulated and discussed in some detail in the Plan document, as will be mentioned below, was that of Rs. 11, 600 crores.

In the Egyptian case, the planned increase in national income was expected to be achieved by a total gross investment of about L.E. 1,697 million over the five-year period. Accordingly, the rate of gross investment was expected to increase from about 16 per cent of national income in the base year (1959/60) to about 20 per cent of national income in the end year (1964/65). Contrary to the Indian case, this total development outlay was in fact the expected financial requirements of the physical programmes included in the Plan. According to the National Planning Commission, this outlay represented "the money equivalent of both fixed assets and inventories" planned, which was estimated "... on the basis of the projects and programmes presented by the various ministries and organizations directly or indirectly responsible for carrying out these investments".[21] The question of whether this total outlay was within the financial capacity of the country or not was however left virtually unanswered. In the Plan document no reference was made to the expected financial resources of the country during the Plan period. In this respect, all was left to the annual plans, as will be mentioned in some detail below.[22]

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(20) Planning Commission, **Third Five Year Plan, Op. cit.**, p. 90.
(21) The National Planning Commission, **General Frame of the Five Year Plan . . .**, **Op. cit.**, pp. 23-24.
(22) See the National Planning Commission, **General Frame of the Five Year Plan. . . .**, **Op. cit.**, pp. 206-07 ; A. El-Boghdadi, **The Five Year Plan for the Economic and Social Development of the U.A.R., 1960-1965,** (Cairo, 1960), pp. 17-23 ; and this Section below.

Table VI.2 below shows the percentage distribution of total planned investment between the public and the private sectors and the expected relative contributions of the two major financial sources, namely, domestic resources and foreign assistance, to the finance of total investment in each case, together with comparable data for the second phase.

TABLE VI.2

DISTRIBUTION AND FINANCE OF PLANNED INVESTMENT IN INDIA AND EGYPT

(In Percentages)

Item	Phase II		Phase III	
	India (1956-61)	Egypt (1956-61)	India (1961-66)	Egypt (1960-65)
I — Distribution				
1. % Share of Public Sector	61	58	59	89
2. % Share of Private Sector	39	42	41	11
Total	100	100	100	100
II — Finance				
1. % Contribution of Domestic Resources	86	93	76	83
2. % Contribution of Foreign Assistance	14	7	24	17
Total	100	100	100	100

Notes : i — The Egyptian data are based on gross investment and the Indian, on net.
ii — All data are at constant prices. Data of phase (II) and phase (III) in the Egyptian case are at 1955/56 prices and 1959/60 prices, respectively; and in the Indian, at 1952/53 prices and 1960/61 prices, respectively.
iii — In both cases, the contribution of foreign assistance in phase (III) does not include expected foreign assistance for repayment of maturing loans. It does not also include in the Indian case agreed retentions of Rupee resources by the U.S. authorities and additions to buffer stocks from P.L. 480 imports (of about Rs. 200 crores).

Sources : For data on phase (II), see Chapter V. For data on phase (III), see for India, Planning Commission, **Third Five Year Plan, Op. cit.**, pp. 59 and 90-100; and for Egypt, Tables VI-A-15 and VI-A-26 in Appendix A below.

From this table, one can see the relative emphasis on the role of the public sector in the development process in both countries during the second and the third phases. In the Indian case, though the public sector had a much larger investment budget during this phase which was nearly equal to the total planned national investment during the second phase, it had a slightly smaller percentage share in total planned national investment during this phase compared with its share during the second phase. One should not however read too much in this slight but healthy change. Nevertheless, it was probably significant particularly if one considers the less dogmatic approach to the problem (of public sector v. private sector) by the Planning Commission during this phase, as mentioned in Chapter IV, Section II. Encouraging as it might seem, this was however a slight change in degree rather than in substance. On the whole, the Indian strategy of a large and expanding role for the public sector in the development process remained essentially unaffected during this phase.

In contrast, the relative shares of the public and the private sectors in total planned investment during this phase in the Egyptian case clearly show a drastic shift of emphasis towards the public sector, relative to the pattern of investment distribution adopted during the second phase. As shown in the table, the percentage share of the public sector was nearly nine-tenths of total planned investment of this phase (1960-65). This relative share steeply rose from an already high figure of 81 per cent of total planned investment in the First Year Plan (1960/61) to 94.2 per cent of total planned investment in the Fifth Year Plan (1964/65). Consequently, the private sector's share in these totals drastically declined from 19 per cent to 5.8 per cent, respectively, as shown in Table VI-A-15 in Appendix A below.

Apart from the general principle underlying this pattern of investment distribution, mentioned in Chapter IV, Section II, no clear explanation of such pattern was provided in the Five Year Plan or the Annual Plans documents.(23) However, Dr. A. El-

(23) See sources of Table VI-A-15 in Appendix A below.

Morshidy of the National Planning Commission attempted to give a general explanation. He stated : "When private investors in the United Arab Republic, particularly those in the industrial sector, failed to cope with the intensive volume and dimensions of the new investment requirements prescribed in the Plan, the Government first stepped in to fill the gap, and later exercised its constitutional right on behalf of the people to nationalize certain economic activities and, through public control, to accelerate the rate of growth and development".[24]

El-Morshidy's view concerning the failure of the private sector in performing its developmental task particularly in the industrial field and presumably during the First Year Plan (1960/61).[25] is commonly held. But neither El-Morshidy nor anyone else did demonstrate that this was the case. In fact, it is virtually impossible to assess the performance of the private sector during this short period mainly for two reasons. Firstly, the role of the private sector in the implementation of the Five Year Plan was largely and vaguely assumed rather than specified through "proper" consultation with private enterprise during the formulation process.[26] Secondly, and more significantly, the fact is that no data, statistical or otherwise, upon which an assessment of the performance of the private sector during the early years of the Plan are available.[27] So, it may be more plausible to regard the increasing share of the public sector in total planned investment during the Five Year Plan as a consequence of three main policy developments.

The first was the government determination to strengthen the public sector and to increase its role in the development

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(24) See his "Planning for Economic Development in the United Arab Republic," in U.N., **Planning for Economic Development, Volume II, Part I, Op. cit.**, p. 169.

(25) See Ministry of Planning, **The Detailed Plan for the Second Year, 1961-62, Op. cit.**, PP. b-d. See also Chapter IV.

(26) See the National Planning Commission, **General Frame of the Five Year Plan. . . .**, **Op. cit.**, pp. 23-41 ; and Hansen and Marzouk, **Op. cit.**, pp. 278-79 and 304-05.

(27) See Ministry of Planning, **The Detailed Plan for the Second Year, 1961-62, Op. cit.**, its **Preliminary Progress Report on the Implementation of the Third Year Plan, 1962-63, Op. cit.**, and its **The Detailed Plan for the Year, 1963-64, Op. cit.**

process particularly after the "Egyptianization" measures of 1957, as mentioned in Chapter IV. The second was the nature of the investments planned. As will be discussed below, a large part of these investments were of a type which the private sector would, in an underdeveloped country, be unwilling or unable (or even not entrusted by the government) to undertake, such as : the High Dam, land reclamation, and a number of new consumer goods as well as basic and heavy industries. Accordingly the public sector's share in total planned investment of the very first year of the Five Year Plan was as high as 81 per cent. This exceedingly large share for an "infant" sector naturally needed an equally large share in total financial resources expected. But, the expected contribution of the public sector to this total was only 29.3 per cent (see Table VI-A-26 in Appendix A below), This made the problem of mobilizing domestic savings and channelling them to the financially shortage-sector (i.e., the public sector) more serious as well as urgent. This in turn led to the third policy development.[28] Instead of allocating a larger share in total planned investment to the private sector, and, having been committed to this "excessive" emphasis on the role of the public sector, instead of trying the conventional methods of mobilizing resources, the government undertook its nationalization measures of 1960, 1961, 1963 and 1964, as mentioned in Capter IV. Consequently, almost all corporate business was brought into complete State ownership. And as a result, the share of the public sector in total annual planned investment further increased to its highest level of 94.2 per cent in the 5th year of the Plan, as just mentioned.

With respect to the expected relative contributions of the major sources of finance to total financial resources required in the Indian and the Egyptian cases, one can see from the data of Table VI.2 that the expected contribution of foreign assistance was considerably larger during this phase in comparison with that envisaged during the second phase. In both phases, howe-

(28) For other reasons, see Chapters IV and VII.

ver, the relative contributions of foreign assistance in the Indian case were much larger than those in the Egyptian.

In the Indian case, concerning total domestic resources expected, the Planning Commission envisaged that the rate of domestic savings would rise from about 8.5 per cent of national income in 1960/61 to about 11.5 per cent in 1965/66.[29] Though the Commission did not specify how this target was going to be achieved, the rate postulated seems reasonable, compared with that planned for the second phase.[30] In contrast, the expected Egyptian rate was very much overestimated. According to the National Planning Commission, the rate of domestic savings was anticipated to rise from about 14 per cent of national income in 1959/60 to about 22 per cent in 1964/65. This meant that by the fifth year of the Plan, total investment of that year was expected to be entirely financed from domestic resources, with a surplus expected to go towards repayments of maturing foreign loans.[31] In fact, this projection was totally unrealistic. This was conclusively proved during the implementation of the Plan. Instead of a surplus, the draft of the Fifth Year Plan showed an expected deficit to be met by foreign assistance.[32] By the end of 1964/65, the actual rate of domestic savings was only about 16 per cent of national income in that year and the actual foreign assistance was even more than three times that expected in the draft just mentioned.[33]

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(29) See Planning Commission, **Third Five Year Plan, Op. cit.,** p. 28.

(30) See Chapter V, Section II.

(31) Total planned investment for the fifth year of the Plan was originally estimated at about L.E. 351.2 million at 1959/60 prices, and total expected domestic savings were to be about L.E. 394.9 million in that year. See the National Planning Commission, **General Frame of the Five Year Plan . . . , Op. cit.,** pp. 14-18 and 207; and Ministry of Planning, **The Detailed Plan for the First Year, 1960-61, Op. cit.,** p. 354. See also Table VI.1 above.

(32) See Ministry of Planning, **Preliminary Scheme for the Frame of the Fifth Year Plan, 1964-65, Op. cit.,** pp. 7-9, where the expected deficit was estimated to be about L.E. 25 million.

(33) The actual defcit was estimated at about L.E. 75.9 million. See United Arab Republic, Ministry of Planning, **Follow-Up and Evaluation of the First Five Year Plan : 1960/61-1964/65,** Vol. I, (Cairo, Feb., 1966), (in Arabic), pp. 37 and 103-08. See also Chapter VII.

The basic objectives of the Indian and the Egyptian five-year Plans were stated as follows. In the Indian case, they were : (1) to secure an increase in national income of over 5 per cent per annum ; (2) to achieve self-sufficiency in foodgrains and increase agricultural production to meet the requirements of industry and exports ; (3) to expand basic industries like steel, chemical industries, fuel and power ; and to establish machine-building capacity, "so that the requirements of further industrialisation can be met within a period of ten years or so mainly from the country's own resources" ; (4) to utilize to "the fullest possible extent" the manpower resources of the country and to ensure a "substantial" expansion in employment opportunities ; and (5) to establish "progressively" greater equality of opportunity and to bring about reduction in disparities in income and wealth and "a more even distribution of economic power".[34]

In the Egyptian case, the basic objectives were : (1) to achieve an increase in national income of 40 per cent by the end of the five-year period ; (2) to expand the agricultural production to "a maximum", through the increase of cultivated land and the increase of productivity ; (3) to increase the tempo of industrial development and create an industrial base for further development, with consumer goods industries expanding at a rate consistent with the growth of demand for their products and with producer goods industries growing at a pace consistent with the aim of reaching the stage of "a perpetual self-supporting growth of industry" ; (4) to increase labour productivity and expand employment opportunities ; and (5) to achieve larger equality of opportunity and a more even distribution of income and wealth.[35]

Obviously, these are very general and rather vague statements. Nevertheless, they point to the underlying strategy

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(34) Planning Commission, **Third Five Year Plan, Op. cit.,** pp. 48-54.
(35) The National Planning Commission, **General Frame of the Five Year Plan . . . , Op. cit.,** pp. 7-18.

adopted in each case. In both cases, the role of a growing agriculture in the development process was emphasized. The Indian Planning Commission stressed that, ". . . the first priority necessarily belongs to agriculture."(36) The explicit recognition of a viable agriculture in the process of economic development in the Indian Third Plan is in fact a noteworthy departure from the general strategy adopted in the Second. Experiences of the Second Plan (see Chapter VII) have taught the Indian planners that agricultural production could define and limit the overall growth of the economy. In the planning Commission's words, "Experience in the first two plans, and especially in the Second, has shown that the rate of growth in agricultural production is one of the main limiting factors in the progress of the Indian economy."(37) This fact seems to be well understood by the Egyptian planners not only during this phase but also during the first two phases, outlined in Chapter V. The Egyptian National Planning Commission stated that, "agriculture is the main base for the whole economic structure. It supplies people with food, supplies industry with the necessary raw materials, and above all, determines the size of our transactions with the outside world."(38)

This line of reasoning refutes the basic assumption of the Mahalanobis's model, discussed in Chapter V, namely, that the rate of growth of an economy depends on the growth and development of basic and heavy industries. This refutation is probably more substantiated if one considers the timing of the Mahalanobis's thesis, namely, the very early stages of the development process. The industrial programme is apt to go awry in the absence of a strong and viable agriculture. This fact was more appreciated than ever before, as will be seen below.

However, the driving force of the development process in both cases was assigned to industry. According to the Egyptian

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(36) Planning Commission, **Third Five Year Plan, Op. cit.,** p. 49.
(37) Planning Commission, **Third Five Year Plan, Op. cit.,** p. 49.
(38) The National Planning Commission, **General Frame of the Five Year Plan. . . ., Op. cit.,** p. 7.

planners, "Whilst agriculture is considered the primary sector upon which the whole structure of the economy is based, industry is the basic outlet for economic progress and continual growth. Industrial development therefore has to grow at a faster pace than that of economic development as a whole, in order to rectify existing defects in the economic structure." (39) Similarly, the Indian planners emphasized that, "while agriculture and industry must be regarded as closely linked parts of the same process of development, there is no doubt that industry has a leading role in securing rapid economic advance." (40)

With respect to the employment objective, the Indian and the Egyptian planners attempted at making it more specific. The programmes included in the Indian Plan were expected to provide employment opportunities for about 14 million persons. But the number of the new entrants to the labour force during the Plan was expected to be about 17 million. With an estimated backlog of unemployment at the end of the Second Plan of 9 million, leaving aside the serious under-employment problem (see Chapter VII), the total employment opportunities required was about 26 million. This means that the expected backlog of unemployment by the end of the Plan was about 12 million. On this, the Planning Commission only repeated the Second Plan's general statements in this regard (see Chapter V) by saying : ". . . there is a special need for increasing employment opportunities further. This will be partly done by expanding the programmes for village and small industries and agriculture to the extent possible." (41)

In the Egyptian case, the employment target was put at 1.0 million by the end of the Plan. The Egyptian planners estimated the expected new entrants to the "civil labour force",

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(39) The National Planning Commission, **General Frame of the Five Year Plan. . . .**, **Op. cit.**, p. 9.
(40) Planning Commission, **Third Five Year Plan, Op. cit.**, p. 24.
(41) Planning Commission, **Third Five Year Plan, Op. cit.**, p. 74. See also pp. 154-67 in the same source, and this Chapter below.

(i.e. labour force excluding the armed forces), to be about 0.9 million, with "civil labour force" expected to increase from 7.5 million persons in 1959/60 to about 8.4 million in 1964/65. With an estimated total employment of 6.0 million in 1959/60, this means that a backlog of 1.5 million unemployed persons was expected.(42) Labour force was estimated on the basis of a labour force-population ratio of 3:10.(43) Labour force was defined as population whose energy could be used in economic activity, excluding persons who were able to work but neither working nor looking for paid work.(44) Limited as it is, this definition tends to underestimate the size of labour force. Furthermore, the planners did not even refer to the serious under-employment problem (see Chapter VII). So, the unemployment and under-employment problems might have been much more serious than the optimistic expectations of the Egyptian planners suggested.

In the light of these objectives the Indian and the Egyptian planners determined **the volume and pattern of the development outlay** of their respective five-year plans. As mentioned above, total planned development outlay of the Indian Plan was estimated at Rs. 11,600 crores at 1960/61 prices, and that of the Egyptian Plan, at L.E. 1,697 million at 1959/60 prices. The break-up of these two totals by industrial origin, together with comparable data on the second phase, is shown in Table VI.3 below.

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(42) See the National Planning Commission, **General Frame of the Five Year Plan..., Op. cit.,** pp. 15-17; and El-Boghdadi; **Op. cit.,** pp. 26-28.

(43) The National Planning Commission, **General Frame of the Five Year Plan...., Op. cit.,** p. 17.

(44) Such as full-time housewives, full-time students, etc. See El-Boghdadi, **Op. cit.,** p. 26. For more details on this point, see A. El-Shafei, "The Current Labour Force Sample Survey in Egypt", **The International Labour Review,** Vol. XXXIII, (Nov., 1960), pp. 432-49.

TABLE VI.3

ALLOCATION OF PLANNED DEVELOPMENT OUTLAY, BY INDUSTRIAL ORIGIN, IN INDIA AND EGYPT.

Industrial Origin	Phase II		Phase III			
	India (1956-61)	Egypt (1956-61)	India (1961-66)		Egypt (1960-65)	
	%	%	Total (Rs. Crores)	%	Total (L.E. Mns.)	%
1. Agriculture & Allied Pursuits	10.3	23.5 (items 1–2)	1,868	16.1	225.3	13.3
2. Irrigation & Drainage	8.1		650	5.6	166.7	9.8
3. Power	6.3		1,062	9.2	139.5	8.2
4. Village & Small-scale Industries	4.2	37.0 (items 3–5)	539	4.6	1.9	0.1
5. Organized Industry and Minerals	19.0		2,570	22.1	437.3	25.8
6. Transport, Comm. & Storage	21.3	15.2	1,736	15.0	271.8	16.1
7. Housing	14.5	18.0	. . .	. . .	174.6	10.3
8. Social and Other Services	11.4	6.3	2,375	20.5	159.8	9.4
9. Changes in Stocks	4.9	.—.	800	6.9	120.0	7.0
Total	100.0	100.0	11,600	100.0	1,696.9	100.0

Notes : i — (.—.) = not included in total outlay.
ii — (. . .) = included in item (8).
iii — Item (1) includes community development in the Indian case, and the High Dam Project in the Egyptian.
iv — Storage is included in item (I) in both phases for India.
v — Item (7) includes construction in Phase II for Egypt.

Sources : For data of Phase II, see Chapter V, Section II, Tables V.10 and V.14. For data of Phase III, for India, Planning Commission, **Third Five Year Plan, Op. cit.**, pp. 57-59 ; and for Egypt, the National Planning Commission, **General Frame of the Five Year Plan..**, **Op. cit.**, pp. 23-25.

From this table, one can see the general patterns of priorities of the Indian and the Egyptian Plans during this phase. Though agriculture had an important place, industry was given the highest priority. However, in the Indian case, while "industry and mining" remained the topmost priority, "agriculture and irrigation and drainage" were given a relatively larger share in total outlay and consequently a more favourable place in the scale of priorities, in comparison with their relative position during the second phase. This may be considered as a modest step in the right direction as far as the Indian planning strategy is concerned. In the Egyptian case, the order of priorities adopted during this phase was more or less the same as that of the second phase, with the percentage share of industry, electricity and mining being the first and that of agriculture, irrigation and drainage, a strong second.

However, from these patterns of outlay allocation, it is obvious that the relative emphasis in both cases was still on industrialization and the necessary ancillaries like transport and power. In general, it is difficult to argue against this development strategy. As mentioned in Chapter V, the case for industrialization and diversification of the economy of a developing country is nowadays the standard recommendation of any development economist. But, the crucial point here is whether or not one should allocate more than 50 per cent of total outlay to industry and its ancillaries and less than 25 per cent to agriculture and its auxiliaries,[45] as the Indian and the Egyptian planners have done. In order not to repeat the discussion in Chapter V on this point, one may briefly say this. Taking the relative state of development of agriculture in each country (see Chapters III and VIII), such pattern of outlay allocation will probably be a sound one in the Egyptian case, but a questionable one in the Indian. Admittedly, agricultural development in the latter was more stressed during this phase relative to the second phase.

(45) One may argue that power and transport are also ancillaries to agriculture as they are to industry. This may be so. But during the early stages of development these ancillaries are more industrial than agricultural.

But with the state of underdevelopment of agriculture in India, relative to that in Egypt, the Indian pattern of outlay allocation was still excessively biased towards industry and against agriculture during this phase.

More important still was the distribution of the industrial planned development outlay among various industries in each case. Tables VI-A-16 and VI-A-17 in Appendix A below show in detail this aspect of the Indian and the Egyptian Plans. Here again, the Indian planners were rather excessive in their industrial development strategy, compared with the Egyptian. The Indian planners over-emphasized the development of basic and heavy industries vis-à-vis that of consumer goods industries. In contrast, the Egyptian planners tried to strike "a balance" between the two types of industries on the bases of some estimates of present and future demands for their products. In the Egyptian National Planning Commission's words, "... the prospective expansion of consumer goods industries planned with full consideration of the prospective local final demand and with due consideration to the improvement of the balance of trade of these industries". "In the meantime", the Commission continued, "producer goods industries were so planned as to transform our consuming economy into producing-consuming economy".[46]

Accordingly, the precentage share of industries "of a predominantly productive nature" (i.e., mining, motive power, metallic products, machinery and chemical industries) in total industrial production was expected to rise from 16.5 per cent in 1959/60 to 30.9 per cent in 1964/65 at 1959/60 prices. The corresponding figures for industries "of a predominantly consumptive nature" (mainly, textiles industries, food industries, etc.) were 83.5 per cent and 69.1 per cent in the two years, respectively. Taking 1959/60 as 100, the production indices of the industrial sector as a whole, producer goods industries, and

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(46) The National Planning Commission, **General Frame of the Five Year Plan..., Op. cit.**, p. 10. For the basic principles officially adopted in this respect, see Chapter IV, Section II.

consumer goods industries were expected to be 166, 310, and 137, respectively, in 1964/65, as shown in Table VI-A-18 in Appendix A below.

This large expected percentage increase in the production of producer goods industries by 1964/65 was partly due to the relative smallness of the share of these industries in total industrial production in the base year (1959/60). In general, the origin of the demand for the products of most of these industries naturally came and was still expected to come from the development of agriculture and the irrigation network. This development had a strong influence upon the structure of the industrial programme. Cement, fertilizers, and agricultural equipment were among the important lines in the planned producer goods industries. In other words, the industrial programme was planned with particular emphasis on the expansion of capacity of industries which provide industrial inputs to agriculture and its ancillaries. (47)

In contrast, in the Indian case, the programme of industrial development during this phase (the Third Plan) had closely followed the pattern adopted during the second phase (the Second Plan). In the words of the Planning Commission, "In the Third Plan, as in the Second, the development of basic industries such as steel, fuel and power and machine-building and chemical industries is fundamental to rapid economic growth. These industries largely determine the pace at which the economy can become self-reliant and self-generating." (48) So, the general line of reasoning which was put forward in designing the pattern of industrial investment under the Second Plan had obviously dominated the formulation of that of the Third. To quote the Commission again, "Of basic importance in the Third Plan is the programme for the expansion of in-

(47) For details, see Ministry of Industry, **12 years of Industrial Development. . ., Op. cit.,** pp. 185-254.
(48) Planning Commission, **Third Five Year Plan, Op. cit.,** p. 50.

dustries, especially capital and producer goods industries with special emphasis on machine-building..."[49]

Table VI-A-16, mentioned above, clearly shows the relative emphasis on basic and heavy industries in the Third Plan. From the data of this table, the percentage share of these industries was about 90 per cent of a total planned investment of about Rs. 2,455 crores for the industrial programmes of the public and the private sectors, compared with about 83.6 per cent in the Second Plan, (see Chapter V, Table V.16). For the public sector, an industrial development outlay of Rs. 1,520 crores was entirely earmarked for the development of minerals and heavy industries.[50] For the private sector, an industrial investment budget of Rs. 1,050 crores was largely devoted to the expansion of basic and heavy industries. However, in this programme some emphasis was put on the expansion of certain basic consumer goods industries such as cloth, paper, sugar, edible oil, etc.[51] Along with these programmes for large-scale industries, village and small-scale industries, with a development outlay of Rs. 539 crores, were expected to provide more employment opportunities and to increase the production of consumer goods as well as some producer goods.[52]

As a result of these programmes, industrial production was expected to increase by 70 per cent over its level in the base year by the end of the Plan. This total increase was expected to be brought about by a substantial increase in the production of basic and heavy industries and a relatively small increase in that of consumer goods industries. For example, taking 1960/61 as 100, the production indices of cotton textiles, iron and steel, machinery and chemicals were expected to be about 118, 268, 243 and 250, respectively, in 1965/66.[53]

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(49) Planning Commission, **Third Five Year Plan, Op. cit.,** p. 63.
(50) Planning Commission, **Third Five Year Plan, Op. cit.,** pp. 64 and 493-509.
(51) Planning Commission, **Third Five Year Plan, Op. cit.,** pp. 64-65 and 463-92.
(52) Planning Commission, **Third Five Year Plan, Op. cit.,** pp. 59, 67 and 426-51, and this chapter below.
(53) See Planning Commission, **Third Five Year Plan, Op. cit.,** p. 64.

Apart from the general remarks, mentioned above, the Commission did not specify the basis upon which the pattern of industrial investment allocation was devised. Nor was there any private document which provided an explanation of the allocation pattern of total development outlay, as was in the Second Plan. The only work which may be regarded as the basis of the Third Plan was Pitamber Pant's "Dimensional Hypotheses Concerning the Third Five Year Plan."[54] Like the Plan document, it was a laconic document revealing nothing of the process that had gone into its making. One can be reasonably certain, however, that the methods of computation and projection on which it was based were roughly the same as those set out in Mahalanobis's works, discussed in Chapter V.

Pant's basic assumptions were : (1) national income of Rs. 12,500 crores in 1960/61 at 1957/58 prices; (2) an annual average rate of population growth of 2 per cent per annum ; (3) an increase in national income of 6 per cent per annum at constant prices ; (4) a capital-output ratio of 2.2:1, and hence, a total investment of Rs. 10,000 crores during the five-year period at constant prices ; (5) an increase in agricultural output of 5 per cent per annum ; (6) an increase in the share of taxes in national income from 9.8 per cent in 1960/61 to 14.4 per cent in 1965/66 ; (7) an increase of domestic savings from 8.4 per cent of national income in 1960/61 to 13.4 per cent of national income in 1965/66 ; (8) an amount of foreign assistance of Rs. 1,100 crores; (9) the absorption of all additional employment-seekers; and (10) "a balance" between the public and the private sectors which would "broadly conform to the industrial development policy of the government and reflect the growing importance

(54) **Memo.,** Planning Commission, (New Delhi, Feb., 1959). This memorandum is unpublished, but discussed in detail in A.H. Hanson, **The Process of Planning : A Study of India's Five-Year Plans, 1950-1964,** (London : Oxford University Press, 1966), pp. 174-76 ; and P.N. Rosenstein-Rodan, (ed.), **Capital Formation and Economic Development,** (London : Allen and Unwin, 1964), **Paper I,** "The Mathematical Framework of the Third Five Year Plan", by S. Chakravarty, pp. 11-22, and **Paper II,** "Alternative Numerical Models of the Third Five Year Plan of India", by P.N. Rosenstein-Rodan, pp. 23-32.

of the public sector ;" consequently a relative share of the public sector of 67 per cent of total investment was postulated.(55)

According to Pant's model,(56) the Third Plan strategy was to be essentially a continuation and intensification of that of the Second. As shown in Table VI-A-19 in Appendix A below, the pattern of investment allocation suggested by Pant was strikingly similar to that of the Third Plan (see Table VI.3 above). The emphasis on basic and heavy industries was the fundamental principle underlying Pant's planning strategy. "The heavy industry pattern", Pant asserted, "could not be interrupted or reversed".(57) Indeed, it seemed to him even more vital in view of the strain on the balance of payments. The model as a whole was offered as presenting, in Professor Hanson's words, "the quickest possible method of making the transition to a 'self-generating economy' without recourse to totalitarian methods."(58)

In view of the economic conditions of the country in general (see Chapter VII), and Pant's suggested pattern of investment allocation in particular, Pant's postulated capital- output ratio and foreign assistance target were unrealistically low. His employment target was totally divorced from reality.(59) More serious still was the fact that Pant's model, like Mahalanobis's, assumed the share of basic and heavy industries in total investment rather than produced it as a result of its solution. In fact, Mahalanobis's emphasis on these types of industries was not

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(55) Hanson, **Op. cit.**, p. 174 ; and Rosenstein-Rodan, **Capital Formation and Economic Development, Op. cit.**, pp. 11-13 and 23-26. For more details, see Tables VI-A-19 and VI-A-20 in Appendix A below.

(56) As Dr. Little made similar projections related to the Third Plan, this model is sometimes called Pant-Little model. See I.M.D. Little, **Public Finance and the Third Plan**, (New Delhi, 1959), and his "A Critical Examination of India's Third Five-Year Plan", **Op. cit.**, See also Rosenstein-Rodan, **Capital Formation and Economic Development, Op. cit.**, pp. 11 and 23.

(57) Quoted in Hanson, **Op. cit.**, p. 176.

(58) Hanson, **Op. cit.**, p. 176.

(59) See Rosenstein-Rodan, **Capital Formation and Economic Development, Op. cit.**, pp. 27-32 ; and this chapter above.

only retained but also enhanced, largely out of conviction that this was the quickest way to achieve "a self-reliant and self-generating economy."

However, the relative emphasis on basic and heavy industries in the Third Plan, though quantitatively more excessive, was on the whole more rational and selective than that in the Second, for several reasons. Important among them were : (1) in choosing these projects more attention was paid to such considerations as domestic demand and import-export requirements ;[60] (2) unfinished projects of the Second Plan had to be included in the industrial programme for completion ; and (3) in formulating the Plan, more emphasis was put on industries which provide inputs to agriculture, such as fertilizers, cement and agricultural equipment (see Table VI-A-16, mentioned above).

However, neither the Indian Planning Commission, nor for that matter the Egyptian, specified the bases upon which total development outlay was allocated among various sectors and among various lines of activity within each sector. In fact, no where in both the Indian and the Egyptian Plans' documents, one finds a precise account of the investment criteria or other criteria applied. Instead, and without specifying the bases of their calculations, the two Commissions estimated in detail the expected relative shares of various sectors and of various lines of activity within each sector in the anticipated national output and additional employment by the end of their Plans.

In the Indian case, the Planning Commission estimated, as it did in the Second Plan, **the effects of the national development efforts** in terms of select targets and indices of production expected to be achieved by the end year of the Plan. These estimates are shown in Table VI-A-21 in Appendix A below. To

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(60) See Little, "A Critical Examination of India's Third Five Year Plan", **Op. cit.,** pp. 18-19 ; and this Chapter below.

this detailed picture, the Commission only added that if the objectives of the Plan "... are to be achieved, it is essential that a certain minimum development should take place in different sectors of the economy during the next five-year period." "The physical targets of the Third Plan", the Commission continued, "have been formulated keeping these minimum needs in view."(61) Neither in the Plan document nor anywhere else did the Commission reveal the methods of calculating these detailed physical targets.

In the Egyptian case, the National Planning Commission estimated in great detail the gross value of domestic production, production requirements, (i.e., raw materials, unfinished goods, fuel, spare parts, etc.), and the national value added by sector and by commodity in the base year (1959/60) and the end year of the Plan (1964/65), at 1959/60 prices. The Commission also constructed detailed commodity balances for the economy as a whole and for individual sectors in 1959/60 and 1964/65 at 1959/60 prices.(62) Tables VI-A-22, VI-A-23, VI-A-24 and VI-A-25 in Appendix A below give a summarized version of these estimates. Though this effort was an important development in the interindustry studies of the Egyptian economy, practically nothing was mentioned in the Plan document or in the relevant publications of the Commission about how these estimates were made. All what the Commission said on this point was that these estimates were based on ". . . production and income estimates presented by various ministries and organizations . . ."(63)

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(61) Planning Commission, **Third Five Year Plan, Op. cit.,** p. 55. See also pp. 56-76 in the same source.

(62) Commodity balances were defined as commodity resources = domestic production + imports = commodity uses = final consumption commodity production requirements + investment + exports + changes in stocks. See the National Planning Commission, **General Frame of the Five Year Plan. . . ., Op. cit.,** pp. 65-66; and Table VI-A-23 in Appendix A below.

(63) The National Planning Commission, **General Frame of the Five Year Plan. . ., Op. cit.,** pp. 46 and 66.

So, it seems that in both cases these detailed estimates were probably no more than broad guesses of the likely trends over the Plan period. The question of whether these estimates were "good" or "bad" guesses will be dealt with in Chapter VII in the light of the actual performances of the Indian and the Egyptian economies during the period under discussion.

However, from the scattered information available on the Indian and the Egyptian Plans, Table VI.4 below was constructed. This table gives a rough idea about **the basic assumptions of each plan,** Considering the characteristics of planned investments in the two cases, mentioned above, the Egyptian planned sectoral capital-output ratios seem to be on the whole more realistic than the Indian. The relatively high capital-output ratios for irrigation, power, transport and housing were not by and large unreasonable, considering the nature of investments in these sub-sectors. Expected capital per worker and output per worker for every sector as well as for the economy as a whole appear to be substantially larger in the Egyptian case than in the Indian. However, this may be partly explained by the relative states of sectoral and national economic development in each case (see Chapters III and VII) ; and partly attributed to the gross underestimation of the employment problem in the Egyptian case, as mentioned above, and an over-estimation of the employment target in the Indian, particularly if one bears in mind the relative emphasis on heavy industries.(64)

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(64) The employment target seemed to be overestimated, though it was quite modest in relation to the employment problem. See this Chapter above and Chapter VII.

TABLE VI.4

PLANNED INVESTMENT, INCOME AND EMPLOYMENT, BY INDUSTRIAL ORIGIN, IN INDIA AND EGYPT

Industrial Origin	Investment during the Plan Period (1)		Increase in Income by the End Year (2)		Increase in Employment by the End Year (3)		Incremental Capital-Output Ratio (4) = (1) / (2)		Incremental Capital-Labour Ratio (5) = (1) / (3)		Incremental Output-Labour Ratio (6) = (2) / (3)	
	India (Rs.Crores)	Egypt (L.E. Mns.)	India (Rs.Crores)	Egypt (L.E. Mns.)	India (Mns.)	Egypt (000's)	India	Egypt	India (Rs. 10)	Egypt (L.E.)	India (Rs. 10)	Egypt (L.E.)
1. Agriculture & Allied Pursuits	1,460	225.3		112.0	4.83			2.0	302			
			1,700			555	1.2			706	330	218
2. Irrigation & Drainage	650	166.7		9.0	0.32			18.5	2,031			
3. Power	1,062	139.5		12.2	0.27	2		11.4	3,933	39,750		6,100
			1,150				3.2				777	
4. Organized industry & Minerals	2,570	437.3			1.21				2,124			
				253.7		213		1.7		2,062		1,191
5. Village & Small Industries	425	1.9	300		0.90		1.4		472		333	
6. Transport & Communications	1,736	271.8	200	19.8	1.36	8	8.7	13.7	1,277	33,975	147	2,475
7. Housing		174.6		4.5		4		39.0		48,650		1,125
	1,697		1,150		5.14		1.8		330		224	
8. Social & Other Services		159.8		101.7		244		1.6		655		417
9. Changes in Stocks	800	120.0	—	—	—	—	—	—	—	—	—	—
Total	10,400	1,696.9	4,500	512.9	14,03	1,026	2.3	3.3	741	1,654	321	500

Notes: i — (—) = not applicable ii — The Plan period is 1961-66 for India, and 1960-65 for Egypt. iii — L.E. 1 = L1.0s.6d. Rs. 13.67. iv — Monetary data are 1960/61 prices for India' and at 1959/60 prices for Egypt.

Sources: Table VI.3 above, and Table VI-A-19 in Appendix A below; and for India, Planning Commission, **Third Five Year Plan**, **Op. cit.,** pp. 75-76, 159 and 754-55; and for Egypt, the National Planning Commission, **General Frame of the Five Year Plan...**, **Op. cit.,** pp. 16, 46-59 and 139-45.

From the data of this table, one can also see that in the Egyptian case planned capital-output ratio for agriculture is higher than that for industry. It is even much higher if one add irrigation and drainage to agriculture, and power to industry. In the Indian case, the situation is quite the reverse. The planned capital-output ratio for organized industry and power is higher than that for agriculture, irrigation and drainage. It is still so, even if one adds village and small-scale industries to organized industry and power. This indicates two basic facts. In the Egyptian case, given the state of development of agriculture in the base year, further development activities in this sector will probably be of a capital-intensive nature. In the Indian case, it is an additional evidence for the emphasis on industry in general and basic and heavy industries in particular, postulated during this phase.

Apart from the long-term criterion of "self-reliance", the general criteria used for sectoral outlay allocations in both cases seem to have been the relative contribution of the project to planned changes in national income and employment by the end year of the plan. From the data of Table VI. 4, one finds large sectoral divergences in this respect. In the Indian case, the relative contribution of agriculture, irrigation and drainage to planned changes in national income and employment was expected to be the largest (about 38 per cent and 37 per cent, respectively). In the Egyptian case, though the expected contribution of agriculture, irrigation and drainage to planned change in employment was expected to be the largest (about 54 per cent), their expected contribution to planned change in national income was to be only about 23.5 per cent. The largest contribution to national income change was expected to come from industry, minerals and power (about 52 per cent). As mentioned above, no information about the bases upon which these Indian and Egyptian sectoral targets was provided. However, in view of the under-employment problem in agriculture in both cases, the Indian and the Egyptian

employment targets seem to be "excessively high expectations."[65]

Besides these general criteria, it seems that the Indian and the Egyptian planners applied other criteria for the appraisal and selection of individual projects, particularly in the industrial field.

In the Indian case, foreign exchange was considered as a criterion of prime importance in this respect. According to the Planning Commission, "...... the accent will have to be on projects which, by contributing to exports, will earn or, by replacing imports, will save foreign exchange."[66] Subject to this criterion and the general criteria just mentioned, the emphasis in the industrial programme was to be given to individual projects according to the following priorities : "(1) completion of projects envisaged under the Second Five Year Plan which are under implementation or were deferred during 1957/58 owing to foreign exchange difficulties ; (2) expansion and diversification of capacity of the heavy engineering and machine building industries, castings and forgings, alloy tool and special steels, iron and steel and ferro-alloys and step-up of output of fertilizers and petroleum products ; (3) increased production of major basic raw materials and producer goods like aluminium, mineral oils, dissolving pulp, basic organic and inorganic chemicals and intermediates inclusive of products of petrochemical origin ; and (4) increased production from domestic industries of commodities required to meet essential needs like essential drugs, paper, cloth, sugar, vegetable oils and housing materials."[67]

In the Egyptian case, it also seems that foreign exchange criterion was an important factor in appraising and selecting individual projects. Besides this criterion and the employment and national income criteria mentioned above, there were probably various other considerations in connection with the selec-

(65) See Chapters III, VII and VIII.
(66) See Planning Commission, **Third Five Year Plan, Op. cit.,** p. 458.
(67) Planning Commission, **Third Five Year Plan, Op. cit.,** p. 459.

tion of projects in general and those for the industrial programme in particular, along the lines suggested for the industrial programme of the second phase, discussed in Chapter V, Section II. However, as in the Indian case, no information as to how such factors were weighed against each other and as to how the selection of projects were finally made was provided.(68)

With respect to **the financing of the Indian and the Egyptian Plans,** the proposed schemes in both cases were based on a rather ambitious estimates of the expected rates of domestic savings during the five-year period, particularly in the Egyptian case, as mentioned above. However, in each case, the problem of finance was approached quite differently. In the Indian case, additional taxation was the key answer to the problem. In contrast with the pattern of finance of the Second Plan, a less emphasis on deficit financing and a more emphasis on additional taxation were the basic features of the financial scheme of the Third Plan. On the other hand, in the Egyptian case, the accent was upon financing from "within". This conviction steadily grew during the annual implementation of the five-year Plan, as mentioned above. So, besides the traditional methods of resource mobilization, nationalization of the financial institutions and industrial and commercial concerns became a basic tool in the Egyptian financial approach. Accordingly, the expected percentage share of the "surplus of public enterprises" in the financing of the annual development outlay increased from 20.3 per cent in the First Year Plan (1960/61) to 59.3 per cent in the Fifth Year Plan (1964/65), as shown in Table VI-A-26 in Appendix A below.

Table VI.5 below shows the basic features of the Indian and the Egyptian patterns of finance during this phase. As there was not any detailed financial scheme for the Egyptian Five Year Plan, as mentioned above, the Egyptian data were obtained from the Annual Plans, as shown in Table VI-A-26,

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(68) See the National Planning Commission, **General Frame of the Five Year Plan...,** **Op. cit.**

agricultural just mentioned. To put the data of the two cases on a comparable bases, the Indian financial resources were presented for both the public and the private sectors. However, for inter-temporal comparisons with the First Plan and the Second Plan, Table VI-A-27 in Appendix A below was constructed. This table shows the financial resources expected for the public sector during this phase (the Third Plan).

From Table VI.5, one can see the expected relative contribution of each source to total planned financial resources in each case. In the Egyptian case, more than a third of total resources was expected to come from public enterprises. This was mainly due to nationalization of almost all the corporate business sector during the Plan period as mentioned above. In the Indian case, the biggest single contribution after foreign assistance was expected to come from additional taxation. Consequently, the Planning Commission estimated that the proportion of tax revenues to national income was expected to rise from about 8,9 per cent in the base year (1960/61) to about 11.4 per cent in the end year of the Plan (1965/66). On this target, the Planning Commission said, "Considering the requirements of the Third Plan and the rise in incomes expected, this order of taxation is essential as well as practicable.[69] On the operational question of how to achieve this target, the Commission stated: "The details of tax measures to be adopted during the Third Plan will have to be decided upon in the light of the economic situation as it emerges from year to year."[70]

Though the Indian planners seemed to be cautious in their financial scheme during this phase, they were still using deficit financial (in the sense of issuing new money) as a method of resource mobilization. Admittedly, the amount of deficit financing envisaged was considerably smaller than that planned for the Second Plan (see Table V. 20 above). Nevertheless, it was still sizable. Its expected contribution to total planned financial resources was to be as large as the expected "balance from

(69) Planning Commission, Third Five Year Plan, Op. sit., p. 102.
(69) Planning Commission, Third Five Year Plan, Op. sit., p. 103.

TABLE VI.5

FINANCING INDIAN AND EGYPTIAN PLANNED DEVELOPMENT OUTLAYS

Source	Expected Financial Resources			
	India, 1961-66		Egypt, 1960-65	
	Total (Rs. Crores)	%	Total (L.E. Mns.)	%
1. Public Sector Savings				
i — Balance from Current Revenue	550	4.7	120.5	7.1
ii — Surpluses from Public Enterprises	550	4.7	643.1	37.9
2. Public Sector Borrowings				
i — Borrowing from Household Sector	1,940	16.7	261.3	15.4
ii — Borrowing from Private Business Sector			207.0	12.2
3. Net Private Sector Resources				
i — Net Household Sector Savings	3,800	32.8	27.2	1.6
ii — Net Private Business Sector Savings			151.0	8.9
4. Foreign Assistance	2,500	21.6	286.8	16.9
5. Other Sources (mainly additional Taxation)	1,710	14.7	—	—
6. Deficit Financing	550	4.7	—	—
Total	11,600	100.0	1,696.9	100.0

Notes: i — The Indian percentage shares do not add up to 100 because of rounding.
ii — Data are at 1960/61, prices for India, and 1959/60 for Egypt.
iii — Item (3) is investible resources after taxation and lending to the public sector.

Sources: For India, Planning Commission, **Third Five Year Plan, Op. cit.,** pp 95-107, and Table VI-A-27 in Appendix A below, and for Egypt, Table VI-A-26 in the same appendix.

current revenue" or the expected "surpluses from public enterprises". In view of the serious rising of the price level and the acute shortages of basic necessities at the beginning of the Plan period (see Chapters VII and VIII), and in view of the long gestation period of a good number of the investment projects of the Plan, to raise this amount of resources by deficit financing seems to be extremely risky.

In both cases, the situation of foreign assistance during this phase was more encouraging than it had ever been before. The economic blockade imposed upon Egypt after (and because of) the Suez crisis was almost completely removed by 1960, and about the same time, the Aid-to-India Club, officially known as the Consortium of Governments and Institutions, was formed. (71) Consequently, Western and Eastern developed countries offered their help in the financing of the two countries' Plans. (72) This atmosphere of easing the foreign exchange problem in each case had partly been responsible not

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(71) The Consortium was formed at the initiative of the World Bank in 1960. Originally, the participating members of this aid Club were the U.S.A., U.K., West Germany, France, Japan, Canada and the World Bank. Subsequently, Netherlands and Italy became members. See Planning Commission, **Third Five Year Plan, Op. cit.,** pp. 114-15

(72) The following data give an idea about the magnitude of this help during the early years of this phase in both cases:

(Contracted Loans and Credit Facilities)

Donor Country / Receiving Country	Western		Eastern		I.B. R.D.	Total
	U.S.A.	Others	U.S.S.R.	Others		
1 — India, 1961-63 (In Rs. Crores)	1,117	400	238	67	190	2,012
2 — Egypt, 1960-62 (In L.E. Mns.)	41.3	74.7	32.6	14.8	11.2	174.6

Notes : L.E. 1 = L1.Os.6d. = Rs. 13.67.

Sources : For India, Planning Commission, **Third Five Year Plan, Op. cit.,** pp. 114-15; and for Egypt, United Arab Republic, Ministry of Treasury, **Statement on Budget Draft for the Fiscal Year 1961-1962,** (Cairo, 1961), (in Arabic), pp. 5-7.

only for an expected larger foreign assistance in total planned financial resources, but also for a considerably bolder Plan.

These are the basic features of the Indian and the Egyptian Plans during this phase. As for **the general policy measures** for the implementation process, the Indian Plan closely followed the practice estabished by its predecessors, the First and Second Plans. In the Egyptian case, neither the document of the five-year Plan nor those of the annual Plans were concerned with this aspect of planning. So, in this sense, the Egyptian five-year Plan was totally an "open" plan.

Like its predecessors, the Indian Plan outlined in lengthy but unquantitative detail the basic objectives and general policy measures proposed for every economic activity in the country. These objectives and measures were on the whole in the nature of a broad approach which had to be adapted and pursued in each State as part of the National Plan with due regard to local conditions and needs. Compared with the documents of the First and the Second Plans, the document of the Third Plan outlined three basic problems : (1) the price problem, (2) the export problem, and (3) the regional development problem.

With respect to the first problem, the Planning Commission admitted that the dangers of continued or excessive price rises in the Indian economy were obvious. Then, it posed the problem as "one of drawing the right line between too much intervention and too little, and of devising appropriate techniques of controls and regulations at certain vital points in the system".(73) In the Commission's opinion fiscal and monetary policies were to be major constituents of the price policy. The first was to be directed to mopping up the excess purchasing power which tends to push up demands above the level of available supplies, restraining consumption and mobilizing savings more effectively. The second was to regulate the pace

(73) Planning Commission, **Third Five Year Plan, Op. cit.,** p. 13

of credit creation through banks in order not to let the scale and pace of developments in the private sector go out of line with those envisaged in the Plan and thereby exert undue pressure on the limited resources available for investment. These two policies were to be supplemented by physical allocations and direct controls in certain sectors. Essentials for production and consumption were to come under these regulatory devices. Commodities such as : steel, cement, fertilizers, raw cotton, sugar and food grains were singled out as major articles under this category. The Commission however stressed that the role of direct controls "... is essentially to correct imbalance in selected sectors and for this purpose, buffer stocks and market operations are vital." (74)

On the second problem, the Commission emphasized the importance of expanding exports and suggested for the achievement of such objective the following general measures : "(1) domestic consumption must be held within reasonable limits with a view to creating the surpluses for exports ; (2) in view of the increasing profits which can be earned in the domestic market once an economy begins to develop, steps to increase the comparative profitability of exports are essential ; (3) in their cost structure and productivity the principal industries, specially the export industries, must become competitive as early as possible, and a systematic programme to this end has to be persued within each industry. Industrial licensing policies should also be oriented towards export promotion ; and (4) steps must be taken to mobilise public opinion in favour of exports and acceptance of the burdens involved, to enlist the co-operation of industry and trade in this national effort, to improve Government's own organization for market research and intelligence and commercial representation abroad, and to enlarge facilities for credit, insurance, etc." (75)

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(74) Planning Commission, **Third Five Year Plan, Op. cit.,** p. 131.
(75) Planning Commission, **Third Five Year Plan, Op. cit.,** pp. 137-38.

With respect to the third problem, regional development, the Commission stated that, "balanced development of different parts of the country, extension of the benefits of economic progress to the less developed regions and widespread diffusion of industry are among the major aims of planned development." [76] The general approach towards achieving these aims was expressed through a variety of policies and programmes as follows : (1) the priority given to programmes like agriculture, community development, irrigation, especially minor irrigation, local development works, etc., which spread over the entire area within the shortest possible time ; (2) provisions of facilities such as power, water supply, transport and communications, training institutions, etc., in areas which were lagging behind industrially or where there was greater need for providing opportunities for employment ; (3) programmes for the expansion of village and small industries ; and (4) in the location of new enterprises, whether public or private, and particularly where the location was not determined almost entirely by the availability or raw materials or other natural resources, consideration given to the need for developing a balanced economy in different parts of the country. [77]

After reviewing these general problems and the basic objectives related to them and without specifying their connection with the quantitative targets outlined above, the Commission went on to detail its suggested policy measures for individual sector and subsectors along the lines adopted in the Second Plan, described in Chapter V, Section II. However, several general measures originated in the first two Plans were elaborated and emphasized during this Plan. For example, though the industrial policy was to continue being determined according to the Industrial Policy Resolution of 1956, the roles of the public and the private sectors were conceived of as basically supplementary and complementary to one another. In the case of nitrogenous fertilizers where the public sector had already

(76) Planning Commission, **Third Five Year Plan, Op. cit.,** p. 142.
(77) Planning Commission, **Third Five Year Plan, Op. cit.,** pp. 147-53.

assumed a dominant role, it was envisaged that during this Plan private enterprise would enter this field in a bigger way than in the past to supplement the efforts of the public sector. Also, in the case of pig iron, the policy was relaxed to allow the establishment of plants in the private sector with a maximum capacity of 100,000 tons per year, instead of 15,000 tons, as originally permitted. [78]

In the field of village and small industries, the main objectives and policies of the Third Plan were : (1) to improve the productivity of the worker and reduce production costs by placing greater emphasis on "positive" forms of assistance such as improvement of skill, supply of technical advice, better equipment and credit facilities, etc. ; (2) to reduce progressively the role of subsidies, sales rebates and sheltered markets (see Chapter V) ; (3) to promote the growth of industries in rural areas and small towns ; (4) to promote the development of small-scale industries as ancillaries to large industries ; and (5) to organize artisans and craftsmen on co-operative lines. [79]

In agriculture, the principal programmes and policy measures were : (1) irrigation and drainage works ; (2) soil conservation, dry farming and land reclamation ; (3) plant protection ; (4) supply of fertilizers and manures ; (5) seed multiplication and distribution ; (6) better ploughs and improved agricultural implements ; and (7) improved methods of cultivation. The Commission emphasized that in all areas these programmes and policies were to be implemented with the "largest measure of participation on the part of local communities", particularly at the village level. [80] As for the structural changes in agriculture such as land reform and re-organization of production modes, the general policy measures in this respect outlined in the Second Plan (see Chapter V) were repeated in the Third Plan. The Commission, however, admitted that "the total im-

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(78) For details, see Planning Commission, **Third Five Year Plan, Op. cit.,** pp. 457-61.
(79) Planning Commission, **Third Five Year Plan, Op. cit.,** pp. 431-44.
(80) For details, see Planning Commission, **Third Five Year Plan, Op. cit.,** pp. 305-23.

pact of land reform has been less than had been hoped for." Then, it urged that "the land reform programme should be completed with the least delay".(81)

It is obvious that these basic objectives and policies were in fact general and sometimes vague indications to what ought to be done on the national level and in various sectors of the economy rather than detailed specific policies related to the available resources and directly connected with the quantitative targets, outlined above.

In the Egyptian case, such general policy measures, though not mentioned in the Plan document, were in fact common knowledge as well as common practice. Fiscal, monetary and commercial policies were well-recognized as crucial parts of a successful price policy. Also, direct regulation and controls were considered both practical and necessary for "more efficient" distribution of essential commodities.(82) Measures for promoting exports, mentioned in Chapter V, were intensified. With respect to regional development, though the natural and economic discrepancies between the twenty four Governorates of the U.A.R. were on the whole small, this aspect of planning was also considered during this phase. The National Planning Commission worked out a detailed volume on the break-up of total development outlay, projectwise and Governorate-wise.(83) Though the bases of the outlay allocation pattern by Governorate were not spelt out, it seems that regional discrepancies were taken into consideration.(84)

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(81) Planning Commission, **Third Five Year Plan, Op. cit.,** p. 221.
(82) See, e.g., Ministry of Treasury, **Statement on Budget Draft.., Op. cit.**
(83) See United Arab Republic, the National Planning Commission, **General Frame of the Five Year Plan According to Governorates,** (Cairo, 1960), (in Arabic).
(84) See the National Planning Commission, **General Frame of the Five Year Plan According to Governorates, Op. cit.;** and Abd-El-Rahman, "Comprehensive Economic Planning in the U.A.R.", **Op. cit.,** pp. 8-11.

With respect to the industrial sector, after almost all of it had been a public sector domain, the conventional incentives exercised during the second phase were intensified in an attempt to run these concerns commercially and on profit bases. To overcome the abuses of bureaucracy and "officialdom", periodical conferences on administration, production and labour relations, etc., were held for members of the executive machine of public concerns. Training courses for top management personnel were also given in the National Institute of Management Development.[85] Besides these general measures, there were several others, such as : (1) imposition of customs duties on imports in such a way as to protect the Egyptian market for certain industries ; (2) prohibition of the import of commodities for which there was a local substitute ; (3) helping local industries to purchase their requirements at suitable prices from the domestic market ; (4) creating an "industrial consciousness" supported by the establishment of training centres ; (5) establishing the Organization for Standard Measurements which was to be the national authorized reference for standard specifications ; (6) encouraging the Industrial Bank to establish and support industrial concerns ; (7) providing the necessary foreign currency for supplying the industry with capital goods, raw materials and spare parts ; and (8) establishing support funds for various industries, such as the Cotton Spinning and Weaving Fund.[86]

In agriculture, besides the basic measures adopted during the first two phases, such as : irrigation and drainage works, selected seeds, fertilizers, pest control, soil conservation, improved implements, credit and marketing facilities, etc., the Government intensified its land reform measures by reducing the ceiling of land ownership from 300 feddans per family, as it was during the second phase (see Chapter V), to 100 feddans.[87]

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(85) These general measures will be examined against the actual performance of the economy in Chapter VII.

(86) See El-Boghdadi, **Op. cit.**, pp. 35-49 ; and Ministry of Industry, **12 years of Industrial Development, Op. cit.**, pp. 172-75 and 288-318.

(87) See Chapter IV and references cited there.

Because of the re-distribution of the expropriated land in units between 2-5 feddans and because of the inheritance system, the problem of fragmentation of holdings was quite serious. And so was the danger of a reduction in agricultural productivity per unit of land. To guard against this, the government adopted two basic measures : firstly, the re-organization of the Co-operative System and the strengthening of the co-operative society of the village, as described in Chapter V ; secondly, the consolidation scheme.

This second measure was called the "Scheme of Regulating Croprotation and Consolidation of Agricultural Holdings". It was introduced in 1960/61. It was a sort of voluntary collective farming on the village level, according to which small holdings were to be grouped together in viable units and planted according to a uniform crop rotation. This scheme did not jeopardise the farmer's right to his properties. The necessary work was entirely left to his efforts, and the final returns were of course all his. The only limiting condition in this scheme was that once it was adopted there could be no contracting out and farmers had to adhere to the common rotation system. During the Plan period, the Government intended to persuade no less than 1,350 villages to adopt this scheme, mainly through incentives in form of cheap fertilizers, seeds, pesticides and ample credit facilities. By 1966/67, the scheme was expected to cover all the rural areas. The main benefits of the scheme were expected to come from economies in planting, fertilization, spraying, harvesting, irrigation and drainage, preserving soil fertility, and improving production techniques. [88]

In both the Indian and the Egyptian cases, these policy measures were of a very borad nature. In general, given the investment programme in each case, one can say that the rest of

(88) For details, see United Arab Republic, Ministry of Agriculture, **Sceheme of Regulating the Agricultural Rotation,** (Cairo, 1962), (in Arabic), pp. 5-31.

the Plan was expected to be realized through the automatic response of the economy as influenced by policies left largely open for later specification. In this sense, the Indian and the Egyptian [89] economies were supposed to continue as **partially** planned **market** economies.

Finally, with respect to **planning methods** adopted, in both cases, after fixing the national income target, highly aggregate models were constructed for both the tasks of exploring the longterm possibilities and of determining the pattern of investment allocation during the five-year period, as mentioned above. These models were of the Harrod-Domar family, an evaluation of which was made in Chapter V. After the determination of the investment pattern, the detailed targets of the five-year plan were then worked out on a trial-and-error basis. However, no description of the actual planning procedure in general and of the link between the aggregate models and the detailed targets in particular was provided in the documents of the Indian and the Egyptian Plans.

From the scanty information available on the Indian and the Egyptian planning activities in general, the actual **planning procedure** in both cases seems to have been something in this order. After fixing the national objectives [90], the planning commission used simple aggregate models to determine the broad order of magnitudes. Then, with the help of some input-output information, demand studies, historical capital-output coefficients and labour-output ratios, and other data, [91] the sectoral production targets and the investment required to achieve them

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(89) Even after the 1960's' nationalizations, described in Chapter IV.

(90) Determined by the National Development Council in the Indian case and the Supreme Council of National Planning in the Egyptian. See Chapter V.

(91) For more information on this point, see G.E. Eleish, "Uses of the Input-Output Model in Development Planning in Under-developed Countries", The Institute of National Planning, **Memo. No. 215,** (Cairo, August, 1962), reproduced in T.M. Khan, (ed.), **Middle Eastern Studies in Income and Wealth,** (London : Bowes and Bowes, 1965), pp. 272-85, for Egypt ; and P. Rosenstein-Rodan, **Capital Formation and Economic Development, Op. cit. ;** pp. 11-22.

were rather intuitively determined. This stage might be described as a first draft plan frame.

This draft was then referred to technicians and other responsible people in each section in order to enable them to formulate, appraise and consolidate their specific projects in an integrated sectoral plan. At this point, technicians in various sectors started the real work of appraising their respective projects as a part of the national plan, taking into account the sectoral interdependences, a problem hitherto carried out only partially. This work eventually led to more specific sectoral plans. Equipped with these detailed studies of projects and technical priorities, the planning commission then started [92] the process of co-ordination, reformulation and approval of the final list of projects. This process continued on a trial and error basis studying all the time the national data ; detecting contradictions, excesses and bottlenecks ; consulting technicians (and politicians) to readjust their project lists, estimates and contents, until, after a series of successive approximations, the whole list and the national data became as balanced and consistent as possible. At the end of this process, the national plan was finally formulated. Admittedly, this is an over-simplification of a very detailed and complicated process. However, these seem to have been the basic principles underlying planning procedure in India and Egypt. [93]

In this section, an attempt was made to outline, examine and compare the Indian and the Egyptian Plans during this phase. The basic objectives, sizes, strategies, patterns of investment

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(92) Before this step, there was a further complication in the Indian case, i.e., the Plans of the States. It was also, but to a lesser extent, in the Egyptian case with respect to the Governorates' relative shares in total planned development outlay. However, the principles here were similar to those concerning the sectoral plans.

(93) For more details on this point, see Hanson, **The Process of Planning : . . , Op. cit.,** pp. 50-88 and 348-93, and T. Singh, "Planning for Economic Development in India", in U.N., **Planning for Economic Development, Vol. II, Part I, Op. cit.,** pp. 80-83, for India ; and Hansen and Marzouk, **Op. cit.,** pp. 303-04, and I.H. Abd-El-Rahman, "Methodology of Planning for Development in the UAR", paper read at **UNCAST, Paper No. E/conf. 39/H/38,** (Oct., 1962), pp. 1-8, for Egypt.

allocation, patterns of finance, general policy measures and planning procedures of the two Plans were dealt with in various degrees of detail. Though planning in India and Egypt became more systematic, more comprehensive, more ambitious, more agriculturally conscious, more financially cautious, and more public-sector centered, the main features were more or less similar to those of the second phase. Nevertheless, few but basic differences existed. In the Indian case, though the emphasis on basic and heavy industries was still "excessive", it became more discriminate. And though the role of the public sector was still "over-stressed", the private sector was increasingly but moderately encouraged. In the Egyptian case, the role of the pubic sector was excessively and suddenly intensified. Through massive nationalizations in a relatively very short time, virtually all the financial, commercial and industrial corporate concerns were taken ovre by the State. Finally, both the Indian and the Egyptian Plans were too ambitious not only in relation to previous planning activities, but also in relation to total resources available.

II — THE FOURTH PHASE

This phase covers the Fourth Five Year Plan in India (1966/67-1970/71) and the Second Plan in Egypt (1965/66-1971/72). It is considered as the second part of the two countries' long-term Plans, outlined in Section I, which aimed at "a self-reliant and self-generating economy". As will be discussed below, this part had naturally been modified and adjusted in the light of the experience gained and according to circumstances prevailing during the formulation process.

The following presentation has necessarily to be brief, because the main features of planning during this phase are more or less similar to those of the third phase. Furthermore, the planning materials, so far available, are still of a preparatory and illustrative nature and not yet finalized. This is so, in spite of the fact that the implementation process during this

phase has already started in April, 1966 in the Indian case and in July, 1965 in the Egyptian. Finally, as Chapters VII and VIII will be concerned with the effects of the implemented plans (i.e., the first three planning phases) on the Indian and the Egyptian general economic development and problems, the aim of this section is mainly to describe planning methods, strategy and outline during this phase and to see how the Indian and the Egyptian planners have utilized and benefited from 15 years or so of experience.

Due to the poor performance of the two economies, particularly the Indian, during the third phase (se Chapter VII), the Indian and the Egyptian planners faced much more difficult conditions during the formulation process of this phase than ever before. This was mainly due to increasing inflationary pressures and the worsening of the balance of payments. The main factors responsible for this serious situation were : (1) the shortfalls in dometic production, particularly the agricultural component ; (2) "excessively" rising aggregate spending in the economy, especially on consumption and defence purposes ; (3) shortfalls in exports and increasing imports ; (4) delay, in implementng certain important projects, because of tying up of needed external credits or shortage of necessary raw materials, etc. ; (5) inflexibility of the administrative rules and procedures in general, and the limited capabilities and the "excessively" large tasks in the development process of the public sector in particular ; and (6) the explosive growth of population.

Accordingly, the main imperatives laid down by the Indian and the Egyptian planners for this phase were : (1) "maximum" agricultural production ; (2) "maximum" industrial production, with special emphasis on : a) agricultural inputs, b) import-substitutes, c) exportable goods, and d) essential consumer goods ; (3) "more" emphasis on technical education and research ; (4) "less" reliance on foreign assistance ; (5) strengthening and increasing the role of the public sector in production as well as distribution activities ; and (6) effective family plan-

ning and increasing employment opportunities. [94] Obviously, these are very general and vague statements. Nevertheless, they indicate the general features of the strategy adopted during this phase.

Besides, the Indian planners emphasized that "... a big step up in the investments in the metal, fuel, chemical and machine building industries is envisaged so as to raise the domestic production of these activities to a level which would permit the rate of investment postulated for the fifth plan to be sustained with a smaller volume of foreign assistance than at present. The fulfilment of the investment and production targets in these basic and heavy industries is an essential condition to achieve the objective of self-sustained growth". [95] The Planning Commission also stressed the fact that, "vital as agricultural development is, it can not obviously constitute the whole of our development strategy." It then went on to say that, "as a means of attaining long-term viability of our balance of payments, the efficient and accelerated development of a variety of capital goods industries has to continue to be an essential part of the development strategy". [96] Another important feature of the Indian strategy during this phase was the ruling out of deficit financing as a means of resource mobilization. In the words of the Commission, ". . . for the first time, our plan is based on a definite and complete eschewal of deficit financing". [97]

In the Egyptian case, after allowing for a limited expansion of consumer goods industries, an increasing emphasis on intermediate, basic and heavy industries was envisaged, in com-

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(94) For details, see Planning Commission, **Fourth Five Year Plan : A Draft Outline, Op. cit.,** pp. 1-23, for India ; and United Arab Republic, Ministry of Planning, **A Draft of the General Trends of the Second Five Year Plan for Economic and Social Development, 1965/66-1969/70,** Cairo, Feb., 1964), (in Arabic), pp. 1-55, for **Egypt.**

(95) Gov. of India, Planning Commission, Prespective Planning Division, **Notes on Prespective of Development, India : 1960-61 to 1975-76,** (New Delhi, April, 1964), p. 7.

(96) Gov. of India, Planning Commission, **Annual Plan : 1966-67,** (NeW Delhi, March, 1966), pp. 2-3. See also Planning Commission, **Memorandum on the Fourth Five Year Plan, Op. cit.,** pp. 5-6.

(97) Planning Commission, **Fourth Five Year Plan : A Draft Outline, Op. cit.,** p. 32.

parison with that postulated during the third phase. The reasons given for this shift of emphasis were: (1) creating a sound base for industrial development; (2) contributing to the "long-term" solution of the problem of the balance of payments through import-substitution and export-promotion; (3) strengthening the future expansion of consumer goods industries; and (4) diversifying the industrial structure and trying to maintain a "balance" between consumer goods and producer goods industries.[98] The Ministry of Planning emphasized that, ". . . the Second Plan can rightly be described as the plan of heavy industries".[99] This shift of emphasis, excessive as it may appear, was by and large a step in the right direction, for several reasons.

Important among them is the fact that most of these planned 'producer goods' industries, (contrary to the Indian over-ambitious practice according to which the country went for the "whole complex" of basic and heavy industries particularly the much sophisticated and complicated ones such as machine-building industries as early as 1956), were mainly intermediate goods industries such as fertilizers, soda ash and caustic soda, semi-finished basic metals and metallic products and spare parts, oil and oil products, paper and paper products, and wood and wood products.[100] The Ministry suggested that in the case of the "impracticability of producing an intermediate good in all its stages in the country, it could be imported in its early manufacturing stage and completed domestically.[101] Secondly, these industries were selective and, according to the Ministry, were based upon a "thorough" study of the present and future domes-

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(98) See Ministry of Planning, **A Draft of the General Trends of the Second Five Year Plan.., Op. cit.**, pp. 14-15, 75-80 and 84-85.
(99) See United Arab Republic, Ministry of Planning, **The Fundamentals of the Second Plan,** (Cairo, 1966), (in Arabic), The Industrial Sector's Section, p. 1.
(100) Ministry of Planning, **A Draft of the General Trends of the Second Five Year Plan.., Op. cit.**, pp. 14-15, 32-50 and 84-85; its **The Fundamentals of the Second Plan,** The Industrial Sector's Section, **Op. cit.**, pp. 1-10; and Chapter V, footnote (121).
(101) Ministry of Planning, **A Draft of the General Trends of the Second Five Year Plan.., Op. cit.**, p. 39.

tic demand for their products.[102] Thirdly, the "limited" expansion of consumer goods in general was planned on the basis of projected increases in consumption and exports by commodity, and in view of "trying not to create surplus problems in some commodities as happened during the First Plan (the Third phase)".[103]

These correcting and adjusting elements in the Indian and the Egyptian strategies made their approaches to the development problem during this phase more balanced and more rational than during the previous phases. Planning, though still in its preliminary stage, seemed to be more comprehensive, more systematic and technically more refined than the previous attempts outlined above. In both cases, detailed projections of both demand for and supply of major commodities were made. The likely development of the economy, in the light of the aggregate and sectoral targets of production, income and employment and the expected investment required for their achievements, was worked out. In general, the methods of planning and the bases of the detailed calculations of planned variables were more spelt out in the two countries' planning documents of this phase than ever before, as will be briefly mentioned below.

In both cases, planning for this phase began while the plans of the third phase were about half way through their implementation. So, based on progress reports of the implemented parts of these plans, the early documents on planning for this phase were worked out. Important among these documents were : **Notes on Perspective of Development...,** (April, 1964), and **Memorandum on the Fourth Five Year Plan,** (Oct., 1964) in the Indian case, and **A Draft of the General Trends of the Second Five Year Plan...,** (Feb., 1964) in the Egyptian, as cited above. Though detailed and technically superior in comparison with any of their predecessors, they were very ambitious in their objectives

(102) Ministry of Planning, **A Draft of the General Trends.., Op. cit.,** pp. 73-76.
(103) Ministry of Planning, **A Draft of the General Trends.., Op. cit.,** p. 15.

and targets. At the end of the third phase, and on the basis of its final progress reports, a second attempt to plan for this phase was made. Understandably, the documents of this last attempt (so far published) were more realistic and more cautious than those of the first attempt.[104] These documents were **Annual Plan,** (March, 1966) and **Fourth Five Year Plan: A Draft Outline,** (August, 1.66) in the Indian case, and **The Fundamentals of the Second Plan,** (1966) in the Egyptian, as cited above. These two attempts are now dealt with in turn.

I — The First Attempt

In both countries, revisions of the long-term plans of the third phase were made on the basis of the "actual" data available on the implemented parts of the first five-year periods of these plans. Having three years of actual implementation of these first periods (the third phase), the likely achievements at the end of these periods were estimated. Consequently, the second period in the Egyptian long-term Plan and the second and third periods in the Indian were quantitatively projected in great detail. Unlike their predecessors, the Indian and the Egyptian planning documents of this attempt revealed a good deal of information regarding the bases of their detailed calculations.

The Indian Planning Commission emphasized that, "aggregative analysis dealing only with marco magnitudes are useful to check the general consistency of a detailed plan. But the key problems and bottlenecks are revealed only when detailed analysis at a microlevel is attempted".[105] It is from this basic fact that work was done in both cases to analyse problems of demand and supply arising from the growth of the national output and the achievement of stated national objectives to help in

(104) However, this last attempt was still very ambitious relative to planning activities of the third phase as well as relative to the available resources, in each case.
(105) Planning Commission, **Notes on Perspective of Development.., Op. cit.,** p. 1. For similar comment, see Ministry of Planning, **A Draft of the General Trends.., Op. cit.,** p. 71.

taking consistent and timely decisions regarding the best use of resources and attaining the "full" potential of growth in the economy. The outcome of this work was **Notes on Perspective of Development**..., in the Indian case, and **A Draft of the General Trends**..., in the Egyptian, as mentioned above. The Indian document was more explicit, detailed and refined than the Egyptian. But the methods underlying the calculations of each document seemed to be basically the same.

These methods were something in this order. On the basis of the main objectives aimed at, the macro variables were determined. These variables were the national aggregates of output, exports, imports, income, consumption, investment, employment and the like. Having reached these aggregates, the following steps were then worked out : (1) the composition of final demand in terms of specific goods and services ; (2) the gross requirements of all commodities, including the demand for intermediate products, consistent with the pattern of final demand and input requirements of various activities, on the basis of detailed commodity balances ; (3) the level of domestic production of major products consistent with their respective total requirements and the balance of payments constraints ; (4) the magnitude and pattern of investment required to achieve the targets of production ; and (5) the magnitude and pattern of employment corrresponding to the growth of income and the pattern of investment projected. The detailed assumptions underlying these steps of calculations were clearly stated in the Indian and the Egyptian documents, just mentioned.[106]

Besides, the basic objective of achieving a self-reliant and self-generating economy and in the light of the available record of progress during the third phase (see Chapter VII), each country outlined the specific objectives of its **revised long-term**

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(106) See for India, Planning Commission, **Notes on Perspective of Development..**, **Op. cit.**, pp. 9-24 ; and for Egypt, Ministry of Planning, **A Draft of the General Trends.., Op. cit.**, pp. 71-94.

Plan. In the Indian case, these objectives were : (1) to ensure a "minimum" consumption of Rs. 20 per capita per month, at 1960/61 prices, to the entire population by the end of the Fifth Five Year Plan ; (2) to improve the amenities of life in the rural areas ; (3) to ensure that the economy would be capable of sustaining an average annual rate of growth of the order of 7 per cent even after 1975/76, without depending on foreign aid ; (4) to achieve "a significant increase" in the employment opportunities during the period from 1965/66-1975/76 ; and (5) to promote a social order which affords equality of opportunities and prevents "excessive" disparity in income and wealth.(107)

In the Egyptian case, these objectives were : (1) to double the national income of 1959/60 by 1969/70 at constant prices ; (2) to increase final consumption by an average annual rate of the order of 6 per cent during the period 1965/66-1969/70 ; (3) to increase exports to "the maximum level possible", e.i., an average annual increase of about L.E. 45 million during the period 1965/66-1969/70, and consequently to achieve an actual surplus in the current balance of payments ; (4) to achieve "full" employment by the end year (1969/70) ; and (5) to achieve greater equality of opportunity and a more even distribution of income and wealth. (108)

With respect to the fifth objective in these two lists, the Indian Planning Commission considered increasing employment opportunities, increasing the role of the public sector in the development process, and the share of social and other services in total development outlay, as will be specified below, as means towards achieving this objective. In other words, this objective was expected to follow from the totality of measures and changes undertaken as part of the Plan. In the Egyptian case, the government took more serious and rather drastic steps towards achieving this objective during the third phase to the

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(107) Planning Commission, **Notes on Perspective of Development.., Op. cit.,** p. 2.
(108) Ministry of Planning, **A Draft of the General Trends.., Op. cit.,** pp. 73-94.

extent that consumption increases were "too excessive" and consequently the planned domestic savings rates were seriously under-fulfilled, as will be discussed below. However, during this phase, the policy measures became on the whole moderate and understandably cautious. Besides the general measures such as increasing the role of the public sector, increasing employment opportunities and increasing the share of social services in total development outlay, as will be seen below, wages were expected to have an increasing share in national income-from about 45 per cent in 1962/63 to about 53 per cent in 1969/70. However, these increases, the Ministry of Planning maintained, were strictly related to equal expected increases in labour productivity. [109]

Table VI.6 below gives the base-year data and **the main objectives and assumptions of the Indian and the Egyptian (revised) long-term Plans** [110] and shows the increasing tempo of development postulated. With respect to the first period, the likely achievements were provisionally estimated on the basis of "actual" data of three years of implementation of the third phase (1961/62-1963/64 for India and 1960/61-1962/63 for Egypt). However, as the data of the 5th year of the first period (1964/65) were not worked out in the Egyptian document, the data of the 1st year of the second period (1965/66) are used in the table instead. This is done to give a rough idea about what the Egyptian planners had in mind regarding the final performance of the economy during the first period. Consequently, the Egyptian first period in the following table covers the six years from 1960/61 to 1965/66, and the second, as stated in the document, the five years from 1965/66 to 1969/70.

(109) See Ministry of Planning, **A Draft of the General Trends.., Op. cit.**, pp. 89-92.
(110) For the original long-term Plans of the two countries, see Table VI.1 above.

TABLE VI.6

LONG-TERM DEVELOPMENT PLANS FOR THE INDIAN AND THE EGYPTIAN ECONOMIES : FIRST REVISION

(At Base-Year Prices) (In Rs. Crores for India and L.E. Mns. for Egypt)

Item	Base Year		Periods of the Plans				
			I		II		III
	India (1960/61)	Egypt (1959/60)	India (1961-66)	Egypt (1960-66)	India (1966-71)	Egypt (1965-70)	India (1971-76)
I — End Year Data							
1 — National Income	14,140	1,285	18,000	1,858	26,000	2,570	37,300
2 — National Income (Index)	100	100	127	145	184	200	263
3 — Gross National Product at Market Prices	15,940	1,353	20,440	1,983	29,780	2,777	43,210
4 — Net Flow of Foreign Assistance	520	23	550	9	350	-50	. .
5 — Gross Domestic Expenditure (= 3 + 4)	16,460	1,376	20,990	1,992	30,130	2,727	43,210
6 — National Consumption (= 5 — 7)	14,360	1,200	17,490	1,624	23,830	2,052	33,910
7 — Gross Capital Formation (= 5 — 6)	2,100	176	3,500	368	6,300	675	9,300
8 — Gross Capital Formation as % of N. Income	15	14	19	20	24	26	25
9 — Gross Domestic Savings (= 7 — 4)	1,580	153	2,950	359	5,950	725	9,300
10 — Gross Domestic Savings as % of N. Income	11	12	16	19	23	28	25
11 — Total Population (in Mns.)	439	25.6	492	30.3	555	34.1	625
12 — Population Index	100	100	112	118	126	133	142
13 — Total Employment (in Mns.)	174	6.0	-.-	7.7	219	9.6	246
14 — Per Capita Income (in Units of N. Currency)	322	50	366	61	468	75	597
15 — Per Capita Income Index	100	100	114	122	145	150	185
16 — Per Capita Consumption (in Units of N. Currency)	301	47	313	54	379	60	480
17 — Per Capita consumption Index	100	100	104	115	126	128	160
I — Period Data							
18 — Total Investment	1,620	176	10,000	1,881	22,160	2,513	34,000
19 — Increase in National Income	—	—	3,860	573	8,000	771	11,300
20 — Capital/Output Ratio (= 18/19)	2.8:1	3.0:1	2.6:1	3.28:1	2.8:1	3.26:1	3.0:1

Notes : i — (. .) = nil. ii — (-.-) = not estimated. iii — (—) = not applicable. iv — Item (18) is net in the Indian case, and gross of depreciation in the Egyptian. v — Item (19) is calculated as the difference between the base-year figure and the end-year figure for each period. vi — Item (20) for the base years is taken from Table VI.1 above.

Sources : Table VI.1 above; and for India, Planning Commission, **Notes on Perspective of Development. . ., Op. cit.,** pp. 2-3, 11, 22 and 27, and for Egypt, Ministry of Planning, **Follow-up and Evaluation of the First Five Year Plan : . . ., Vol. I, Op. cit.,** pp. 37, 76, 91 and [illegible] **Trends . . ., Op. cit.,** pp. 25-27, 74-75, 95-97 and 106-07.

From this table, one can clearly see the quantitative aspect of the basic objectives of the Indian and the Egyptian long-term Plans, stated above. On the whole, these projections were more reliable and in some variables more realistic, compared with those of the original Plans of the third phase, shown in Table VI.1 above. However, in spite of the poor performance of the economy during the first three years of these long-term Plans, particularly in the Indian case, and may be because of it, the end-year targets of these Plans were "excessively" ambitious.

In the Indian case, the Population projection and the capital-output ratios postulated, apart from the correction of the ratio of the first period, were more or less the same as those of the original Plan, shown in Table VI.1. But investment and savings targets seemed to be seriously overstated. Gross capital formation as a percentage of national income was expected to increase from 15 per cent in 1960/61 to 19 per cent in 1965/66, 24 per cent in 1970/71 and 25 per cent in 1975/76. The corresponding expected gross domestic savings' percentages were 11, 16, 23 and 25, respectively. This means that total financial resources were expected to come entirely from domestic sources by the end of the Plan. In the light of the past performance of the economy as well as the available resources of the country (see Chapters III and VII), these targets seemed to be rather unrealistic. So did the planned increase in national income of about 163 per cent by the end of the 15-year period, compared with only 128-133 per cent projected in the third phase Plan. (111)

Similarly, the employment targets were rather loosely and unrealistically set. In the words of the Commission, "It is estimated that even after allowing for fairly large increases in average productivity in every sector, the programme would absorb an additional 50 million people in non-agricultural jobs

(111) Even this latter expected change was considered very ambitious, indeed. See Section I.

during the period 1960-61 to 1957-76, but 20 million will still have to be absorbed in agriculture". "The level of investment contemplated in 1975-76 would, however," the Commission continued, "be adequate to absorb the entire labour force thereafter in non-agricultural activities". The Commission then stated : "By this time, it would be reasonable to expect a certain reduction in the rate of growth of population as a consequence of the family planning programme". Withhout specifying how this was expected to come about, the Commission went on to say : "Rapid growth (7-8 per cent per year) of the economy at this stage should start making labour scarce". It then immediately corrected itself by saying : "But it seems too early to worry about that." (112) Indeed, it was so, especially if one considers the underemployment problem, the unrealistic nature of the national income projection and the pattern of investment allocations, as will be mentioned below.

In the Egyptian case, the population projection and the capital-output ratios postulated in the original Plan were reasonably corrected in this Plan. National income target by the end year of the Plan (1969/70) remained as it was in the original Plan, (i.e., an expected increase of 100 per cent by the end of the 10-year period). However, in view of the economic problems facing the country, as stated above, this target seemed to be still rather high. This was particularly so in view of the unrealistic nature of the targets of savings as well as those concerning foreign trade. With only 13 per cent as the share of domestic savings in national income in 1962/63, (113) this share was expected to rise to 20 per cent in 1965/66 and to 28 per cent by the end year of the Plan (1969/70). And with practically stagnant exports during the first three years of the Plan, (114) exports during the remaining seven years were ex-

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(112) Planning Commission, **Notes on Perspective of Development.., Op. cit.,** pp. 7-8.
(113) See Ministry of Planning, **A Draft of the General Trends.., Op. cit., p. 49.** See Chapter VII.
(114) Ministry of Planning, **A Draft of the General Trends.., Op. cit.,** pp. 32-37.

pected not only to cover the increasing imports but also to achieve a surplus of about L.E. 60 million.[115] These estimates were sheer speculations. A serious effort to increase domestic savings and to promote exports was, of course, badly needed. But to put targets as high as these without any reasoning or foundations would not solve these basic problems. These targets in fact amounted to wishful thinking. And in the final analysis, they indicated a fundamental weakness in the Egyptian planning approach.

The total employment target of 9.6 million jobs was described by the Ministry of Planning as "... very near to the level of full employment."[116] This again was a gross underestimation of the unemployment problem. Furthermore, the underemployment problem, serious as it was, espicially in agriculture, was not even mentioned.[117]

So, though having tried to be more concrete and realistic, the Indian and the Egyptian planners were grossly over-optimistic, particularly with respect to the postulated rates of growth in national income and employment, and the assumption of "total financial independence" by the end year of their long-term Plans. Admittedly, in both the Indian and the Egyptian documents, the planners emphasized that their projections, though "attainable" and "reasonable", were still very provisional and tentative, and necessarily needed to be scrutinized by various organizations connected with planning activities, particularly those responsible for the task of implementation.[118]

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(115) After repayment of L.E. 10 million of maturing loans, this surplus was expected to be L.E. 50 million, in net terms. See Ministry of Planning, **A Draft of the General Trends. . ., Op. cit.,** pp. 96 and 106.

(116) Ministry of Planning, **A Draft of the General Trends. . ., Op. cit.,** p. 110.

(117) See Ministry of Planning, **A Draft of the General Trends. . ., Op. cit,** and Chapters III and VII.

(118) See Planning Commission, **Notes on Prespective of Development. .. , Op. cit.,** pp. 1 and 25, for India ; and Ministry of Planning, **A Draft of the General Trends. ., Op. cit.,** pp. 2-3, 67-72 and 122-28, for Egypt.

In each case, however, the data of the second five-year period were worked out in greater detail on the basis of alternative consistency models. In the Indian case, there were three major alternative models, and in the Egyptian, four. The object was to examine the effects of alternative assumptions regarding the growth of consumption and investment and the pattern and change of foreign trade during the five-year period on the level of domestic output, for the economy as a whole and by industrial origin, in the end year of the period. The two sets of models were based on detailed input-output analyses.(119) The Egyptian set was computed at the Centre of Operations Research, at the Institute of National Planning (Cairo), and the Indian, at the Electronic Computing Centre, at the Institute of Technology (Kanpur). A statistical summary of the Indian models is presented in Tables VI-A-28 and VI-A-29 in Appendix A below. A more detailed statistical account of the Egyptian models is shown in Tables VI-A-30, VI-A-31, VI-A-32, VI-A-33, VI-A-34 and VI-A-35 in the same appendix.

In each case, the chosen model was by and large the most reasonable alternative. In the Indian case, the adopted model, Model (E), (see Tables VI.6 and VI-A-28, just mentioned), was based on Model (D) which was in turn a version of Model (A), but with a more ambitious foreign trade component and iron and steel output target. In the Egyptian case, the chosen model, Model (V), (see Tables VI.6, VI-A-30 and VI-A-35, just mentioned), was based on Model (IV), but with a more ambitious domestic savings targets and still more ambitious exports targets. To minimize repetition, all the criticisms levelled at the Indian and the Egyptian long-term Plans of this attempt, mentioned above, are equally applied to these chosen models.

According to this work, in each case, **the pattern of allocation of planned development outlay as well as the pattern of**

(119) For details, see Planning Commission, **Notes on Perspective of Development.., Op. cit.**, 178-87, for India; and Ministry of Planning, **A Draft of the General Trends.., Op. cit.**, (Part II), pp. 1-25, for Egypt.

total employment envisaged, by industrial origin, during the five-year period were worked out. (120) Table VI.7 below shows these patterns in the two cases. In the Indian case, total net investment was expected to be about Rs. 22,160 crores at 1960/61 prices for the period 1966-71. Of this, it was envisaged that the share of the public sector was to be about 64 per cent and that of the private sector, about 36 per cent. With an expected current outlay in the public sector of about Rs. 2,170 crores, total development outlay was therefore estimated to be about Rs. 24,330 crores. Consequently, the share of the public sector in this total was expected to be about 67 per cent and that of the private sector, about 33 per cent. (121) In the Egyptian case, total investment was expected to be about L.E. 2,513 million at 1959/60 prices for the period 1965-70. This planned investment was gross of replacement and depreciation. Though the Egyptian document did not specify the relative shares of the public and the private sectors in this total investment, and judging from the reasoning and analysis of that document as well as bearing in mind the experience of the third phase (the First Five Year Plan) in this respect, (122) the share of the public sector was most probably over 90 per cent of this total. (123) So, one can safely say that in both cases the attitude of "over-emphasizing" the role of the public sector was still very much in the minds of the Indian and the Egyptian planners.

From table VI. 7, one can see that the pattern of outlay allocation in each case was not very much different from that of the third phase (see Tables VI.3 and VI.4). Nevertheless, there were significant changes in this attempt, compared with the pattern adopted during the third phase. Important among these changes

(120) However, the sectoral assumptions upon which these patterns were made were not spelt out in some detail, particularly in the Indian case. See Planning Commission, **Notes on Perspective et Development..**, **Op. cit.**, for India ; and Ministry of Planning, **A Draft of the General Trends...**, **Op. cit.**, for Egypt.

(121) Planning Commission, **Notes on Perspective of Development...**, **Op. cit.**, p. 23.

(122) See Ministry of Planning, **A Draft of the General Trends...**, **Op. cit.** ; and this Chapter, Section I and Chapter IV.

(123) The actual share during the third phase was about 90 per cent See Chapter VII.

TABLE VI.7

PLANNED TOTAL DEVELOPMENT OUTLAY AND TOTAL EMPLOYMENT, BY INDUSTRIAL ORIGIN, IN INDIA AND EGYPT

Industrial Origin	Planned Total Outlay				Expected Total Employment			
	India (1966-71)		Egypt (1965-70)		India (1966-71)		Egypt (1965-70)	
	Total (Rs. Crores)	%	Total (L.E. Mns.)	%	Total (Mns.)	%	Total (Mns.)	%
1. Agriculture & Allied Pursuits	3,840	16	375	15	134.9	61	4.4	46
2. Village & Small-scale Industries	900	4			23.0	11		
3. Large-scale Industry and Mining	6,440	26	767	31	11.8	5	1.8	19
4. Power	2,300	9	111	4	*	*		
5. Transport & Communications	4,050	17			5.4	2		
6. Services	2,700	11	854	34	38.8	18	3.0	31
7. Housing & Construction	2,700	11	206	8	5.5	3	0.4	4
9. Inventories	1,400	6	200	8	—	—	—	—
Total	24,330	100	2,513	100	219.4	100	9.6	100

Notes : i — The monetary data are at 1959/60 prices in the Egyptian case and at 1960/61 prices in the Indian.
ii — (*) = included in item (3).
iii — (—) = not applicable.

Sources : For India, Planning Commission, **Notes on Perspective of Development. . ., Op. cit.,** pp. 22-23, and its **Memorandum of the Fourth Five Year Plan, Op. cit.,** p. 10 ; and for Egypt, Ministry of Planning, **A Draft of the General Trends. . ., Op. cit.,** pp. 88 and 107.

were : (1) in absolute terms, the share of each sector in total development outlay was nearly double that in the third phase ; (2) though agriculture had a smaller relative share, its important place in the scale of priorities was still more or less the same as in the third phase ; and (3) though the relative share of industry was still the highest, greater and deliberate emphasis was put on the development of industries producing agricultural inputs than ever before. [124] However, though the Indian and the Egyptian planners were slowly moving towards a more "reasonable" strategy, the basic snag in their attempts, in view of the two countries' economic problems and bearing in mind their assumption concerning foreign assistance, stated above, was the unrealistically "too high" planned total development outlay, compared with that postulated in the third phase which was itself too ambitious, as mentioned above. In the Egyptian case, it was nearly double that of the third phase, and in the Indian, more than double.

As for employment, the Indian planners expected an increase in total employment of about 31.37 million by the end year (1970/71), or about 224 per cent of the third phase target. [125] The Egyptian planners envisaged an increase in total employment of about 2.60 million by the end year (1969/70), or about 252 per cent of the third phase target. [126] Neither the previous performance of the two economies in this respect nor the patterns of outlay allocation postulated justified such excessively high targets. [127] In view of the nature of

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(124) See Planning Commissi n **Notes on Perspective of Development. . ., Op. cit.,** for India ; and Ministry of Planning, **A Draft of the General Trends. ., Op. cit.,** for Egypt.

(125) Assuming that the employment target of the third phase was fully achieved, then total employment at the base year (1965/66) would be 188.03 million. With an expected total employment of 219.4 million in 1970/71, then the targeted increase was to be 31.37 million. See data of Tables VI.4, VI.6 and VI.7.

(126) Assuming that the employment target of the third phase was fully achieved, then total employment at the base year (1964/65) would be 7.00 million. With an expected total employment of 9.60 million in 1969/70, then the targetd increase was to be 2.60 million. See data of Tables VI.4, VI.6 and VI.7.

(127) See Chapters VII and VIII.

further investments in both the industrial and the agricultural sectors in the two countries in general and their industrial strategies in particular (more capital-intensive methods), and in view of the underemployment problem in the two economies, particularly in agriculture, these employment targets for the economy as a whole and for various sectors, as shown in Table VI.7, were highly exaggerated.

As for **the financing of the planned development outlay in** each case, the Indian and the Egyptian documents did not specify the expected contributions of various sources. However, it seems that the planners in the two countries heavily relied upon domestic resources. As mentioned above, this approach was based upon over-optimistic expectations concerning the rates of domestic savings and the performance of exports. In view of the economic problems of the two countries and in view of the volume of total investment postulated, the rapidly diminishing contribution of external assistance in the India and the Egyptian financial schemes was unrealistically too optimistic, (see Table VI.6). Table VI.8 below gives a rough idea about the order of importance of various sources of finance during the base year (1965/66) and the end year (1970/71) in the Indian case and the first year (1965/66) and the end year (1969/70) in the Egyptian.

From this table, one can see that the Indian financial pattern had not drastically changed from that of the third phase (see Table VI.5 above). The relative expected contributions of various sources remained more or less the same, with one or two exceptions. Public sector savings were expected to increase appreciably in comparison with their expected level in the third phase. Deficit financing envisaged was further limited. The contribution of external assistance was expected to diminish substantially by the end year of the Plan. In the Egyptian case, the planners depended more heavily upon domestic resources than in the Indian. According to the Egyptian pattern, a surplus in the current balance of payments account was ex-

TABLE VI.8

FINANCING PLANNED DEVELOPMENT OUTLAY IN INDIA AND EGYPT

Source	India (Rs. Crores)				Egypt (L.E. Mns.)			
	(1965/66)		(1970/71)		(1965/66)		(1969/70)	
	Total	%	Total	%	Total	%	Total	%
1. Public Sector Savings								
i — Balance on Revenue Account	155	5	630	12				
ii — Surplus of Public Enterprises	355	12	750	14				
2. Public Sector Domestic Borrowings	570	20	920	17	359	97.6	725	107.4
3. Additional Taxation	70	2	600	11				
4. Net Private Sector Savings	1,050	36	1,900	35				
5. Deficit Financing	150	5	250	5	—	—	—	—
6. External Assistance	550	19	350	6	9	2.4	—50	—7.4
Total	2,900	100*	5,400	100	368	100.0	675	100.0

Notes: i — (*) = data of this column do not add up to 100 because of rounding.
ii — Item (4) is net of taxation and lending to public sector.
iii — (—) = nil or negligible.
iv — The Indian data are net investment and at 1960/61 prices, the Egyptian gross of depreciation and at 1959/60 prices.

Sources: For India, Planning Commission, **Notes on Perspective of Development. . ., Op. cit.**, pp. 28 and 33, and for Egypt Ministry of Planning, **A Draft of the General Trends. . ., Op. cit.**, p. 106.

pected by the end year of the Plan.[128] This "hopeful" picture was based on a rather unrealistic exports target, as mentioned above.

However, the Indian and the Egyptian planners emphasized the tentative nature of their respective calculations. They stressed the necessity of detailed studies and thorough technical understanding of the implications of the national and sectoral targets suggested, and the urgent need for careful estimations of various financial resources and for deliberate efforts to achieve larger degree of resource mobilization. But, apart from stating the major and obvious shortcomings of the public sector, particularly in the technical and organizational fields, and stressing the need for overcoming them, the planners in the two countries did not suggest any specified and concrete measures of policy.[129]

ii — The Second Attempt

This is the latest exercise in the two planning experiences under consideration. Compared with the first attempt just discussed, this attempt was more realistic in objectives, more sound in strategy, more reliable in statistics and more cautious in policy measures. This is understandable because, while the first attempt was made against a three-year implementation of the third phase, this attempt was made with the final progress reports of that phase on hand. But, alas, the suggested plans were still excessively bold in size, very ambitious in objectives and targets and still over-emphasizing the role of the public sector in the development process.

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(128) For more information on this point, see Ministry of Planning, **A Draft of the General Trends. . ., Op. cit.**, pp. 96-97.

(129) See Planning Commission, **Notes on Perspective of Development. . ., Op. cit.**, for India ; and Ministry of Planning, **A Draft of the General Trends . ., Op. cit.**, for Egypt.

The latest document of this attempt was **Fourth Five Year Plan : A Draft Outline** in the Indian case and **The Fundamentals of the Second Plan** in the Egyptian, cited above. In contrast with those of the first attempt, these documents were largely laconic ones, revealing very little information on the processes that had gone into their makings. However, there is no reason to suggest that planning methods appreciably changed from those adopted in the first attempt. In fact, this attempt could be considered as a numerical adjustment of the computations and projections of the first attempt, in view of the third phase (see Chapter VII).

In the light of the unsatisfactory performances of the Indian and the Egyptian economies during the third phase, particularly the Indian,[130] the data of the first attempt had to undergo drastic downward changes. The Indian and the Egyptian planners consequently tried to revise their long-term and medium-term plans for the fourth phase, under discussion. Though the basic objectives remained unchanged, the planners scaled down their projections and targets.

In the Indian case, the third phase (the Third Five Year Plan, 1961-66) was considered as "abnormal" period. In the words of the Planning Commission, "... in several respects the Third Plan period turned out to be very abnormal."[131] According to the Commission, the reason for this (unfavourable) abnormality were various. Firstly, weather conditions were adverse during three out of five years of the Third Plan period. Secondly, the country had to face "serious hostilities" in the second and fifth years of the Plan. Thirdly, the delays in tying up the needed external credits in certain important cases in the earlier years of the Plan and virtual suspension of bulk of these credits during the last year accentuated the difficulties.

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(130) See Planning Commission, **Fourth Five Year Plan : ..., Op. cit.,** for India ; and Ministry of Planning, **The Fundamentals of the Second Plan, Op. cit.,** for Egypt. See also this Chapter and Chapter VII, below.
(131) Planning Commission, **Fourth Five Year Plan : ..., Op. cit.,** p. 5.

These factors, among others,[132] contributed to the shortfalls in the Third Plan. Except for one year, namely, 1964/65, agricultural production did not show any increase and large imports of foodgrains continued. Industrial production was also lower than expected. Consequently, by the end of the Plan period, the rate of growth of national income was less than half of the rate of 5 per cent per annum aimed at, with national income being Rs. 14,140 crores in 1960/61 and Rs. 15,930 crores in 1965/66 at 1960/61 prices.[133] In fact, in the fifth year of the Plan, national income actually declined by about 4.2 per cent — from Rs. 16,630 crores in 1964/65 to Rs. 15,930 crores in 1965/66, at constant prices.[134]

These shortfalls in domestic production occurred at the same time as aggregate spending in the economy was rising. In consequence, the Third Plan period witnessed a steep increase in prices, especially prices of agricultural commodities. During this period the general price index rose by 36.4 per cent or by a measure larger than the increase that had occurred in the preceding ten years.[135] Furthermore, the Rupee was devalued on June 6, 1966[136] Accordingly, the par value of the Rupee was lowered by 36.5 per cent with effect from that date. This brought about an additional major change in the economic situation necessitating a complete re-examination of Plan resources, priorities and outlays for the fourth phase.

Accordingly, in drawing up a **revised long-term Plan,** it had to be recognized that the economic position had somewhat changed from that of two or three years ago (the time of the first attempt), not only on account of failures of the Third Plan in achieving its original targets (see Chapter VII) but

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(132) See Planning Commission, **Fourth Five Year Plan : . . ., Op. cit.,** pp. 2-7.
(133) Planning Commission, **Fourth Five Year Plan : . . ., Op. cit.,** p. 3 ; and Chapter VII.
(134) Planning Commission, **Fourth Five Year Plan : . . ., Op. cit.,** p. 3 ; and Chapter VII.
(135) Planning Commission, **Fourth Five Year Plan : . . ., Op. cit.,** p. 3 ; and Chapter VII
(136) As a consequence, the par rate of exchange between the Rupee and the Dollar became Rs. 7.50 per $ 1 instead of Rs. 4.76 per $ 1 prior to the devaluation. See Planning Commission, **Fourth Five Year Plan . ., Op. cit.,** p. 97.

also on account of the higher cost of imported equipment and materials and of the debt burden and debt servicing charges resulting from devaluation. However, the Commission refrained from making the necessary revision and even seemed to accept the long-term Plan of the third phase (see Table VI.1) with some adjustments to its second five-year period (the Fourth Plan), as will be discussed below. In the Commission's own words, "Planning in the immediate future has necessarily to be strictly realistic in the sense of taking due note of the constraints on growth and the extent to which the time span involved would permit a relaxation or elimination of these constraints". "But when one is visualising the targets at the end of the Fifth Plan or beyond," the Commission continued, "one must never forget the objective of planning which is not merely the establishment of a self-reliant and self-sustaining economy but also the achieving of a satisfactory and rising standard of living for the masses of the people." (137)

Accordingly, **the basic objectives of the long-term Plan** of the third phase and of its revised version for the first attempt were re-stated by the Commission for this attempt. These objectives were : (1) the need for closing the balance of payments gap as early as possible and "the speedy termination of dependence on external credits for the continuing economic growth of the country" ; (2) the need for "the speedy" building of the country's capacity for both capital formation and "adequate" consumption ; and (3) the need for achieving both these objectives consistently with price stability and absence of inflationary finance. (138) The Commission then summed up these objectives in one sentence by saying : "In other words, the economy should reach self-reliance by the beginning of the Sixth Plan period." (139)

However, the obvious downward adjustments were those of the second period of the long-term Plan, i.e., the Fourth Five

(137) Planning Commission, **Fourth Five Year Plan : . . , Op. cit.,** p. 27.
(138) Planning Commission, **Fourth Five Year Plan : . . , Op. cit.,** p. 24-27.
(139) Planning Commission, **Fourth Five Year Plan : . . , Op. cit.,** p. 25

Year Plan. The total planned net investment was estimated to be about Rs. 21,350 crores, compared with Rs. 22,160 crores as suggested for the same period in the first attempt. The reduction is however appreciably greater than the quoted figures indicate, as the first is in post-devaluation Rupees, and the Second, in pre-devaluation Rupees. National income target in 1970/71 was also reduced from Rs. 26,000 crores according to the first attempt to Rs. 23,100 crores according to this attempt, at 1960/61 prices. There had consequently been a reduction in the physical programmes. For example, the target of foodgrains in 1970/71 was reduced from 122 million tons to 120 million ; coal, from 140 million tons to 106 million ; finished steel, from 11.5 million tons to 8.8 million ; cotton textiles, from 6,400 million metres to 5,486 million ; and school-going children as a percentage of children in the age group of 6-11 years, from 99 to 92.[140]

With respect to the financing of the total planned development outlay for the five-year period 1966-71 of about Rs. 23,750 crores (= total net investment of Rs. 21,350 crores and developmental current outlay of Rs. 2,400 crores, in post-devaluation Rupees), the Commission stressed that it "... should be on a completely non-inflationary basis."[141] The Commission specifically emphasized that : "Deficit financing will have to be avoided."[142] So, in contrast with the first attempt, deficit financing had completely been dropped from the financial scheme of this attempt. At the same time, a more realistic approach to external assistance was adopted. Accordingly, external assistance during the Plan period was expected to be about Rs. 800 crores per annum at the pre-devaluation rates of exchange,[143] compared with about Rs. 400 crores suggested in

(140) For detailed information on this point, see Planning Commission, **Notes on Perspective of Development. . . ., Op. cit.,** pp. 44-67 ; and its **Fourth Five Year Plan : . . ., Op. cit.,** pp. 62-71.
(141) Planning Commission, **Fourth Five Year Plan : . . . Op. cit.,** p. 75.
(142) Planning Commission, **Fourth Five Year Plan : . . . Op. cit.,** p. 19.
(143) Or about Rs. 1,260 crores at the post-devaluation rates of exchange. See Planning Commission, **Fourth Five Year Plan : . . ., Op. cit.,** pp. 90-91.

the first attempt. According to the Commission, this amount was essential for partially meeting the Plan's foreign exchange requirements and also for repaying the maturing debts and paying the debts servicing charges.

In the Egyptian case, the performance of the economy during the third phase (the First Five Year Plan) was more favourable than in the Indian (see Chapter VII). The actual national income in 1964/65 was L.E. 1,728.1 million, compared with a target of L.E. 1,840.1 million at 1959/60 prices. However, agricultural production was much smaller than originally expected. Growth of the commodity sectors was on the whole much slower than that of the services sectors.(144) The most disappointing aspect of the performance of the economy during 1960-65 was the excessive increase in national consumption, with an annual average rate of 8 per cent. The annual average increase in public consumption however was proportionately much higher than that of private consumption. In fact, the annual average rate of increase in the former was more than double that in the latter (with 14.2 per cent and 6.5 per cent, respectively). The inevitable result was a very low actual domestic savings rate, compared with the planned one. The rate was expected to increase from its level of 12.8 per cent in the base year (1959/60) to 22 per cent in the end year of the Plan (1964/65), as mentioned in Section I. The actual rate however increased from 12.8 per cent to only 14.1 per cent, respectively. This situation, together with a sharp fall in agricultural output in 1961/62 (mainly due to cotton worm and adverse weather conditions), a very poor export performance,(145) and above all the Yemen War (from 1962 onwards), caused serious stresses and strains in the economy, exerted dangerous pressures on the country's resources, and severely aggravated the balance of payments difficulties. By 1964/65, the foreign exchange problem reached its climax,

(144) See Ministry of Planning, **Follow-up and Evaluation of the First Five Year Plan : . ., Vol. I, Op. cit.**, pp. 4-45 ; and Chapter VII.

(145) Actual exports increased from L.E. 190 million in 1959/60 to only L.E. 265 million in 1964/65 at current prices. See Ministry of Planning, **Follow-up and Evaluation of the First Five Year Plan : . ., Vol. I, Op. cit.**, p. 111 ; and Chapter VII.

with accumulated foreign debt of about L.E. 417.4 million during the Plan period, compared with a planned amount of L.E. 286.8 million.(146)

Accordingly, the Egyptian planners had to revise on a more realistic basis the data of the first attempt. As this phase was the second and final period in the Egyptian long-term Plan, this Plan and the medium-term Plan were consequently scaled down. Various drastic downward changes in the data of the first attempt had been made. Important among them was the extension of the period of this phase from five years (1965-70) to seven years (1965-72). Secondly, the annual average planned total investment was reduced from L.E. 502.6 million in the first attempt to L.E. 447.2 million in this attempt. This reduction is much larger than these figures suggest, as the first total is at 1959/60 prices, and the second, at 1964/65 prices.(147) Thirdly, though the Plan period increased by two years, national income target was reduced from L.E. 2,570 million in 1969/70 according to the first attempt to L.E. 2,496 million in 1971/72 according to this attempt, at 1959/60 prices. So, the target of doubling the 1959/60 national income of L.E. 1285.2 million in ten years was replaced by a 94.2 per cent increase over that level in twelve years. Fourthly, the unrealistic assumption of achieving a domestic savings rate of 28 per cent by 1969/70 was replaced by a more realistic but still rather ambitious target of a planned rate of 20 per cent in 1971/72. Fifthly, the too optimistic aim of achieving a "surplus" in the balance of payments by the third year (1967/68) as postulated in the first attempt was completely dropped. Instead, the Ministry of Planning expected an accumulated deficit in the balance of payments during the seven-year period of about L.E. 498.3 million or L.E. 80.9 million more than the actual

(146) See Ministry of Planning, **The Fundamentals of the Second Plan, Op. cit.,** p. 27, and this Chapter, Section I. For more details on these difficulties and their causes, see Ministry of Planning, **Follow-up and Evaluation of the First Five Year Plan.., Vol. 1, Op. cit.,** pp. 86-89 and 104-08 ; and Chapters VII and VIII.

(147) Taking 1939 = 100, the index number of wholesale prices was 418 in 1959/60, and 470 in 1964/65. See Table VII-A-36 in Appendix A below.

deficit that occurred during the third phase (the First Five Year Plan), at 1964/65 prices. This expected deficit was to be met by external assistance. Furthermore, the Ministry of Planning maintained that easing the difficult problem of foreign exchange which was facing the country at the beginning of this phase required the deferment of the country's obligations towards repaying maturing foreign debts, including those of the First Plan, to the Third Plan period, i.e., after 1971/72.(148)

From this brief review of the basic features of this attempt in the two cases, one can see that the Indian and the Egyptian planners had begun to be more objective in their planning approaches and more modest in their aims and targets. However, they were still quite ambitious in some aspects of their modified long-term and medium-term Plans for this phase. After the various adjustments just mentioned, **the Indian and the Egyptian modified long-term Plans for the fourth phase,** were as shown in Table VI.9 below. This second revision of these Plans seem to be more realistic than that of the first attempt (see Table VI.6 above). However, the data of the Indian third period (the Fifth Plan) were still very ambitious, particularly with respect to the targets of domestic savings and national income. The expected decreasing rate of population growth, due to family planning, was rather unrealistic, (even in comparison with the population projection of the first attempt, shown in Table VI.6). In the Egyptian case, the expected investment and savings rates of the second period (the Second Plan) seemed to be on the higher side. Nevertheless, the targets of the second period in each plan should on the whole be within the limits of each country's resources. Needless to say, their achievement naturally needs "maximum" national effort.

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(148) For details, see Ministry of Planning, **The Fundamentals of the Second Plan, Op. cit.**, pp. 1-32. And for comparable data on the first attempt, see Ministry of Planning, **A Draft of the General Trends...., Op. cit.**, pp. 73-97; and this Section above.

TABLE VI.9

LONG-TERM DEVELOPMENT PLANS FOR THE INDIAN AND THE EGYPTIAN ECONOMIES: SECOND REVISION

(At Base-Year Prices) (In Rs. Crores for India and L.E. Mns. for Egypt)

Item (End Year Data)	Base Year		Periods of the Plans				
			I		II		III
	India (1960/61)	Egypt (1959/60)	India (1961-66)	Egypt (1960-65)	India (1966-71)	Egypt (1965-72)	India (1971-76)
1. National Income	14,140	1,285	15,930	1,728	23,100	2,496	33-34,000
2. National Income Index	100	100	113	134.4	163	194.2	233-240
3. Investment As % of N. Income	11	12.5	14	17.8	17.5	20.8	19-20
4. Savings As % of N. Income	9	12.8	10.5	14.1	15.5	19.5	20-21
5. Total Population (in Mns.)	438	25.7	492	29.5	555	35.8	608
6. Population Index	100	100	112	115	126	139	139
7. Per Capita Income (In Units of National Currency)	323	50	324	59	416	70	543-559
8. Per Capita Income Index	100	100	100.3	118	129	140	168-173

Notes: Data of the base years and the first periods are actual.

Sources: For India, Planning Commission, **Fourth Five Year Plan: A Draft Outline, Op. cit.,** pp. 28-29 and 61; and for Egypt, Ministry of Planning, **Follow-up and Evaluation of the First Five Year Plan** ...., **Vol. 1., Op. cit.,** pp. 34, 104 and 107, and its **Fundamentals of the Second Plan, Op. cit.,** pp. 12-13, 16 and 24-28.

As for the second periods of these Plans which are the subject of this attempt, the basic objectives and strategies adopted in the first attempt remained more or less the same.

In drawing up the Fourth Five Year Plan, the Indian Planning Commission kept in view the following **principal tasks :** (1) for ensuring the achievement of self-reliance "as early as possible", highest priority was to be given to all such schemes of agricultural and industrial production as were designed to promote exports and replace imports ; (2) for ensuring price stability, "effective" steps were to be taken to check all inflationary factors and avoid deficit financing ; (3) for enlarging the income of the rural population as well as for augmenting the supplies of food articles and agricultural raw materials, all possibe efforts were to be made to "maximize" agricultural production ; (4) for enabling this objective to be realized, production of such goods as fertilizers, insecticides, agricultural implements, including pumps, diesel engines, tractors, etc., was to be given the highest priority in the programme for industrial development ; (5) for enlarging the supplies of essential mass consumption goods on which additional incomes were to be spent, production of articles like textiles, sugar, drugs, kerosene, paper, etc., was to be stepped up ; (6) for ensuring continued growth in the metals, machinery, chemicals, mining, power and transport industries, schemes in hand were to be completed with "the maximum possible expedition" and such new schemes were to be undertaken as were essential for keeping up the momentum of economic growth already built up and for meeting the basic needs of the country during the Fifth Plan period ; (7) for limiting the growth of population and ensuring better standard of living for the people, all necessary resources were to be provided to enable the family planning programme to be implemented on a massive and countrywide

scale ; and (8) for the development of human resources, substantial additional facilities were to be provided in the social services sector, especially for the rural areas, and these were to be suitably reoriented in the direction of increasing productivity.(149) Though this impressive list of tasks is rather general, the order of objectives and the pattern of priorities of the Plan seem to be clear. A more explicit and deliberate priority was given to agriculture, export promotion and import substitution. Industrial development was to provide the highest priority to industrial inputs for these three vital elements in the development strategy.

In the Egyptian case, **the basic objectives,** according to the Ministry of Planning, of the Second Plan were : (1) achieving more "balanced" and diversified economic structure and creating a "sound" base for further development by more emphasis on industrialization in general and heavy industries in particular ; (2) "maximum" agricultural production ; (3) contributing to the long-term solution of the balance of payments problem by giving priority to all schemes of agricultural and industrial production that were to increase import substitution and export promotion ; (4) ensuring increasing domestic savings by reasonably limiting consumption growth (to 3-4 per cent per annum) ; (5) strengthening the infra-structure of the economy by more investment in electricity, transport and communications, as well as in such sectors as education, health, etc. ; and (6) increasing employment opportunities.(150) As in the Indian case, this list of objectives is rather general. However, the basic pattern of priorities seems to be clear. There was no great departure from the strategy adopted in the first attempt. By and large, this strategy was a sound one, particularly if one considers the relatively developed stage of agriculture. Further-

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(149) Planning Commission, **Fourth Five Year Plan : . . . , Op. cit.** pp. 16-17.
(150) See Ministry of Planning, **The Fundamentals of the Second Plan, Op. cit.,** pp. 1-2, 4-6, 17 and 21.

more, most of the planned heavy industries were mainly intermediate goods industries, a good part of which was designed to produce agricultural inputs such as fertilizers, insecticides, agricultural implements, etc. (151)

According to these objectives, total development outlay planned for this phase was distributed among various sectors of the economy. Table VI.10 below gives **the pattern of outlay allocation** by industrial origin and sectoral shares in expected total increase in employment, by the end year of the Indian and the Egyptian Plans. In the Indian case, out of a total development outlay of Rs. 23,750 crores at 1965/66 prices, the share of the public sector was estimated to be 67 per cent. (152) In the Egyptian case, total development outlay was expected to be L.E. 3,130.7 million at 1964/65 prices. Like the document of the first attempt, the document of this attempt did not specify the relative shares of the public and the private sectors in this total outlay. However, as there was no change whatsoever in the government attitude towards the private sector after the Socialist Laws described above and bearing in mind the basic objectives of this Plan, the relative share of "over 90 per cent" suggested in the first attempt does not seem to be unreasonable for this attempt. So, one may say that in both cases, the role of the public sector in the development process was still very much over-emphasized.

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(151) See Ministry of Planning, **The Fundamentals of the Second Plan,** The Industricl Sector's Section, **Op. cit.,** pp. 1-10 ; and this Section above.
(152) Planning Commission, **Fourth Five Year Plan:....., Op. cit.,** pp. 41-42.

TABLE VI.10

PLANNED TOTAL DEVELOPMENT OUTLAY AND TOTAL INCREASE IN EMPLOYMENT, BY INDUSTRIAL ORIGIN, IN INDIA AND EGYPT

Industrial Origin	Planned Total Outlay				Expected Employment Increase			
	India (1966-71)		Egypt (1965-72)		India (1966-71)		Egypt (1965-72)	
	Total (Rs. Crores)	%	Total (L.E. Mns.)	%	Total (Mns.)	%	Total (000's)	%
1. Agriculture & Allied Pursuits	4,274	18	598.3	19.1	4.75	25	391	29
2. Village & Small-scale Industries	690	3						
3. Large-scale Industry and Mining	6,286	26	1,066.8	34.1			246	18
4. Power	2,080	9	263.0	8.4			14	1
5. Transport & Communications	3,640	15	558.0	17.8	14.00	75	107	8
6. Services	3,030	13	324.6	10.4			543	41
7. Housing & Construction	1,780	8	320.0	10.2			40	3
8. Inventories	1,970	8	-.-	-.-	—	—	—	—
Total	23,750	100	3,130.7	100.0	18.75	100	1,341	100

Notes : i — (-.-) = not included in total.
ii — (—) = not applicable.
iii — Item (I) includes the High Dam (41.5 million) in the Egyptian case.
iv — Total outlay is net investment plus developmental current outlay, and at 1965/66 prices in the Indian case; and gross investment and at 1964/65 prices in the Egyptian.

Sources : For India, Planning Commission, **Fourth Five Year Plan : . . . , Op. cit.**, pp. 41 and 60-61 ; and for Egypt, **The Fundamentals of the Second Plan, Op. cit.**, pp. 18 and 22-25.

From this table, one can see that the pattern of outlay allocation was not drastically different from that adopted in the first attempt (Table VI.7), or even that of the third phase (Table VI.3). However, in both the Indian and the Egyptian Plans, the relative share of agriculture was much higher in this attempt than ever before. The share of industry was still the largest. The significant changes however were in the allocation pattern of each sector's share among various activities. For example, in the Egyptian case, over 50 per cent of the agricultural provision was allocated to irrigation and drainage projects (including the High Dam), and over 73 per cent of the industrial provision was allotted for intermediate, producer and capital goods industries.[153] In general the emphasis in every sector was on schemes which improve both the interdependence between various sectors of the economy and the situation of the balance of payments through import substitution and export promotion.[154] In the Indian case, a similar line was adopted. More emphasis on increasing agricultural production, particularly food articles was made. In the industrial programme, agricultural inputs like fertilizers and implements were given the highest priority. In general, the Planning Commission stressed that, "the available foreign credits for projects as well as for maintenance will be utilized mainly for developing the export promoting and import substituting potentials of our agriculture and industry with the maximum possible expedition. A main criterion (along with the principle of comparative advantage) for selection of projects will be then possible contribution to the achievement of this objective."[155]

As for **employment**, the targets in both cases were both moderate and reasonable, compared with the unrealistic targets of the first attempt. In the Egyptian case, an increase in em-

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(153) See Ministry of Planning, **The Fundamentals of the Second Plan, Op. cit.**, p. 22, and in the Industrial Sector's Section in the same source, pp. 1-10.
(154) Ministry of Planning, **The Fundamentals of the Second Plan, Op**. cit., pp. 2-3 and 29-32.
(155) Planning Commission, **Fourth Five Year Plan : . . . ., Op. cit.**, p. 17.

ployment of about 1.34 million was expected by the end of seven years, compared with 2.6 million by the end of five years according to the first attempt. By the end of five years, the Indian target was 18.75 million in this attempt, compared with 31.37 million in the first attempt. In view of the underemployment problem, the striking and sensible change in the sectoral contributions to expected total employment increase was the drastic decline in the relative contribution of agriculture from 37 per cent in the third phase to 25 per cent in this attempt, in the Indian case ; and from 54 per cent to 29 per cent, respectively, in the Egyptian.[156]

As for **financing total development outlay**, the Egyptian document, like its predecessors, did not specify the expected contributions of various sources. The Indian, like its predecessors, did. In both cases, however, the significant change was the dropping of the over-optimistic target of achieving financial self-reliance as early as the end of the Second Plan (1969/70) in the Egyptian case and the end of the Fifth Plan (1975/76) in the Indian. Instead, an important place in the Indian and the Egyptian financial schemes for foreign assistance was envisaged. This was a realistic adjustment of the first attempt's scheme. A further encouraging development was the absence, for the first time, of deficit financing in the Indian scheme. Table VI.11 below gives a general idea about the order of importance of various sources of finance in the Indian case, and the relative importance of foreign assistance in the Egyptian.

(156) See Table VI.4 for the third phase data. For the first attempt, the targets set were for total employment (Table VI.7).

TABLE VI.11

FINANCING PLANNED DEVELOPMENT OUTLAY IN INDIA AND EGYPT

Source	Planned Financial Resources			
	Egypt, 1965-72		India, 1966-71	
	Total (Rs. Crores)	%	Total (L.E. Mns.)	%
1. Public Sector Savings				
i — Balance on Revenue Account	3,010	12.7		
ii — Surplus of Public Enterprises	1,345	5.7		
2. Public Sector Domestic Borrowings	3,880	16.3	2,632.4	84
3. Public Sector Additicnal Resources	3,065	12.9		
4. Net Private Sector Savings	7,065	29.7		
5. External Assistance	5,385	22.7	498.3	16
Total	23,750	100.0	3,130.7	100

Notes : i — The Indian data are at 1965/66 prices and in the post-devaluation Rupee, and the Egyptian, at 1964/65 prices.
ii — Item (3) includes taxation and economies in non-plan expenditure.
iii — Item (4) is net of taxation and lending to public sector.

Sources : For India, Planning Commission, **Fourth Five Year Plan : . . . ., Op. cit.**, pp. 80 and 89 ; and for Egypt, Ministry of Planning, **The Fundamentals of the Second Plan, Op. cit.**, pp. 27-28.

These are the basic features of the latest planning exercises in India and Egypt. The targets of these exercises, though modest in comparison with those of previous exercises (as in the first attempt as well as the third phase), were still rather ambitious in relation to the total resources available (see Chapter VII). As for policy measures, though the Egyptian document detailed sectoral plans, like its predecessors, it did not cover the necessary policy measures for Plan implementation. However, there is no reason to believe that major changes in this respect had occurred since the third phase (the First Plan), discussed above. As for India, detailed sectoral Plans were embodied in the Indian document ; and more or less the same general policy measures suggested in the third phase (the Third Plan) were again repeated. The emphasis was not, however, on changing these broad measures, but rather on the importance and necessity of their implementation.

This Section concludes our discussion on the methods, outline and strategy of the Indian and the Egyptian government planning for economic development. The final evaluation and over-all appraisal of these two planning experiences will be attempted against the actual performance of the Indian and the Egyptian economies during the period of the "implemented" Plans, i.e., the first three phases which cover 1951-1966 for India and 1951-1965 for Egypt, in the following two Chapters.

CHAPTER VII

PLANNING EVALUATION

The battle of production is the true challenge in which the Arab man will justify his worthy position under the sun. Quantity and quality in the production process can not be separated from the working out of time and cost. Otherwise, we lose the vital balance of the production process and, thus, expose it to danger.

Gamal Abd-El-Nasser, **The Charter**, (1962).

The real problem before India is one of implementation and not one of laying down policies. It is important not merely to lay down policies but to have satisfactory audits of performance. The real thing is not the spending of money but what that has produced.

Jawaharlal Nehru, **Speech in the Lok Sabha initiating the discussion on the Draft Outline of the Third Five Year Plan,** (August 22, 1960).

In this Chapter, the Indian and the Egyptian planning experiences will be evaluated against the actual performances of the two countries' economies during the planned period, 1951-1966. The basic question to be dealt with here is how successful the "implemented" Plans in each case have been. In

effect, the following discussion will be mainly concerned with the analysis of "actual results vis-à-vis planned targets".

The period under discussion covers the first three phases of the two planning experiences. In the Indian case, they are the First Plan (1951-56), the Second Plan (1956-61), and the Third Plan (1961-66). In the Egyptian case, they are the project-planning phase (1951-56), the sectoral-planning phase (1956-61), and the first comprehensive national-planning phase or the national First Plan (1960-65).

To evaluate a planning experience one should see whether the actual values of the variables concerned are less, equal, or more than the planned values of these variables, and then try to explain why. This confrontation of the actual and planned values is the simplest technique of evaluation. It is, in effect, the simple measurement of the degree of fulfilment of the planned objectives and targets. There are, however, quite complicated and sophisticated techniques of evaluation in the economic literature. Outstanding examples of these techniques are those embodied in Professor Henri Theil's recent work : **Applied Economic Forecasting.** (1) In this work, there are, however, techniques which are less sophisticated than others. Two techniques of this group are : "the Planning-Realization Diagram"(2) and "the Performance Coefficient".(3)

Even these two techniques can not generally be applied to most variables dealt with in this study, for several reasons. Important among them are : (1) the scantiness of the statistical data available, (2) the relatively poor quality of these data, (3) the lack of interim yearly values of most variables concerned, and (4) the insufficient "comparable" break-ups of

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(1) (Amsterdam : North-Holland Publishing Company, 1966).

(2) Professor Theil calls it : "the Prediction-Realization Diagram". See Theil, Applied **Economic Forecasting, Op. cit.,** p. 21.

(3) Professor Theil calls it : "the Forecasting Coefficient", in his "Who Forecasts Best ?", **International Economic Papers,** No. 5, (1955), pp. 194-99 ; and "the Inequality Coefficient", in his **Applied Economic Forecasting, Op. cit.,** pp. 27-30.

most of the aggregate variables of the two cases. So, the main evaluation method used in the following discussion will be the simplest one, namely, "the relative fulfilment", just mentioned. However, to make a shorthand appraisal of the two planning experiences, the two Theilian techniques are here applied to national income data. As the growth of national income was considered in both cases as the overall basic objective of the development process, this appraisal should therefore give us a bird's eye view on the relative performances of the Indian and the Egyptian economies as well as the quality of the two countries' planning exercises during this fifteen-year period.

Accordingly, Section I attempts an overall appraisal of the two planning experiences according to the planned and actual national income data for the first three phases, stated above. Section II is devoted to a critical examination of the degree of fulfilment of the detailed planned targets of the implemented plans of these phases.

I — GENERAL APPRAISAL

In attempting to appraise the two planning experiences, the two Theilian techniques, namely, the Planning-Realization Diagram and the Performance Coefficient are going to be applied, in turn, to the Indian and the Egyptian national income data for the period 1951-1966.

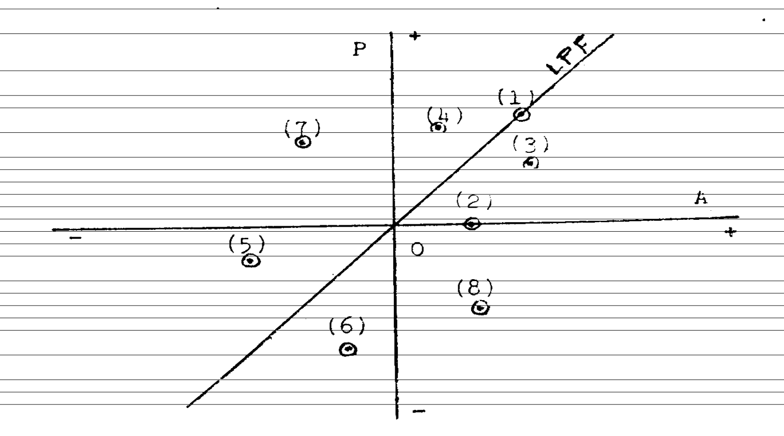
The Planning-Realization Diagram: as illustrated in Fig. VII.1 below, this diagram is a simple graph.(4) It represents a time series of point planned values and actual values of a certain variable. These values are dimensionless changes (percentage

(4) The following description is a simplified version of a complicated one in Professor Theil's work, and the resulted diagram is a modified version of Theil's. For alternative graphical representations, see Theil, **Applied Economic Forecasting, Op. cit.,** pp. 21-26.

changes) in the variable from one year to the next.[5] The actual changes (A) are measured along the horizontal axis, and the planned changes (P) are measured along the vertical axis. The upward sloping straight line through the origin (with an angle of 45 degrees with respect to the two axes) is "the Line of Perfect Forecasts", (LPF). Any point on this line represents a case of "perfect planning". Any point which is not on this line represents a case of nonzero planning error. In Fig. VII.1, point (1) is a case of perfect planning, and points (2) to (8) are cases of nonzero planning error.

FIG. VII.1

ILLUSTRATIVE PLANNING REALIZATION



(5) However, the percentage changes have the disadvantage that numerically equal positive and negative values are in a sense asymmetric. This difficulty can be avoided by using logarithms. See Theil, **Applied Economic Forecasting, Op. cit.,** pp. 46-50. However, in this study, for simplicity and because the changes under evaluation are relatively small and include few negative values (see Table VII-A-40 in Appendix A below), the percentage changes are going to be directly used.

Within the second group (i.e., nonzero-planning-error points), there are three sub-groups. The first comprises any point on the horizontal axis (A). Any point in this sub-group corresponds with no-change extrapolation. This applies to point (2) in Fig. VII.1. The second and third sub-groups are concerned with the signs of the actual and planned changes. The second includes any point according to which planning is not perfect, but the direction of change has been planned correctly. In other words, any point in this sub-group has unequal coordinates of the same sign. Such points are in the first and third quadrants of the diagram. In Fig. VII.1, they are points (3), (4), (5) and (6).

The third sub-group includes any point according to which neither planning is perfect, nor has the direction of change been planned correctly. In other words, any point in this sub-group has coordinates of opposite sign. Such points are in the second and fourth quadrants of the diagram. In Fig. VII.1, they are points (7) and (8). The points of this sub-group are the cases of "turning point errors". There are turning point errors of two kinds. Either a turning point is planned but there is no actual turning point, or there is a turning point but it was not predicted before. Example of the first kind is when point (8) follows, in the time series of the variable, any point in the first quadrant, say, point (4) ; or point (7) follows any point in the third quadrant, say, point (5). Example of the second kind is just the opposite with respect to the places of points (7) and (8), i.e., when point (7) follows point (4), and (8) follows (5).[6]

There is also another important classification which is concerned with the magnitude of the changes themselves. In the case of perfect planning, the actual change is clearly equal to the planned change. But in the cases of nonzero planning errors (which include all points in the diagram except those on the LPF), changes are either underestimated or overestimated.

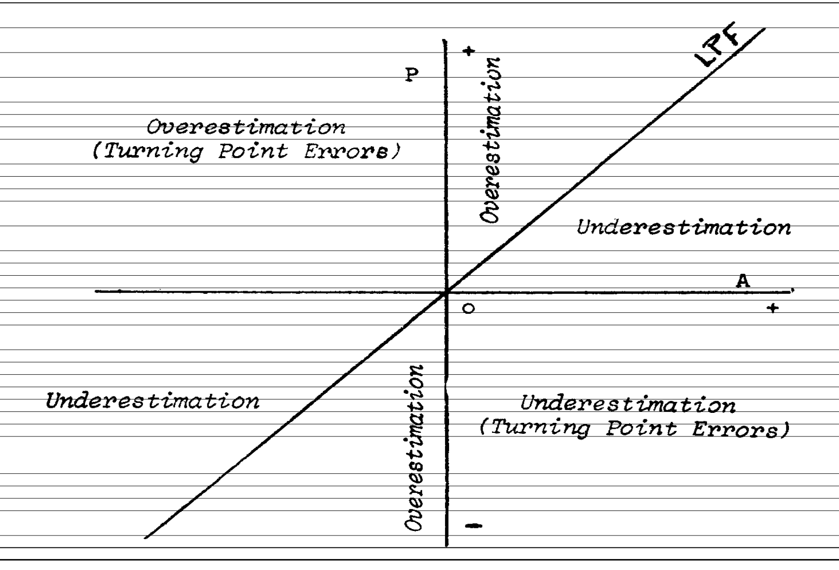
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(6) It is important to note that the kind of the turning point error is only determined by the characteristics (the signs) of the preceding actual and planned changes in the time series of the variable.

Underestimation of changes takes place below the LPF in the first quadrant, above the LPF in the third quadrant, and in the whole area of the fourth quadrant (a turning-point-error quadrant). Overestimation of changes takes place over the LPF in the first quadrant, under the LPF in the third quadrant, and in the whole area of the second quadrant (a turning-point-error quadrant). [7] These various states of the magnitude of changes are depicted in Fig. VII.2.

FIG. VII.2

UNDER — AND OVERESTIMATION OF CHANGES IN A PLANNING — REALIZATION DIAGRAM



(7) In general, in most cases, underestimation of changes occurs more frequently than overestimation. See on this point, Theil, **Applied Economic Forecasting, Op. cit.,** pp. 13-14. However, in both states, the situation of the changes is in general more serious in the turning-point-error quadrants (the second and the fourth) then in other areas. See Figs. VII,1, and VII,2 below.

To apply this technique, Table VII-A-40 in Appendix A below was constructed from the statistical data on national income in India and Egypt given in Table VII-A-36, VII-A-37, VII-A-38 and VII-A-39 in the same appendix. Columns (4), (5), (6) and (7) of that table (VII-A-40) give us 15 observations of planned and actual annual rates of change of national income in India and Egypt during the planned period, 1951-1966, under evaluation. From these data, the Planning-Realization Diagrams of Figs. VII-B-1, VII-B-2, VII-B-5 and VII-B-6 in Appendix B below were constructed. Figs. VII-B-1 and VII-B-2 represent the whole time series for India and Egypt, respectively. Fig. VII-B-5 separately depicts the observations of the three five-year phases for India, and Fig. VII-B-6, for Egypt.

The picture which Figs. VII-B-1 and VII-B-2 reveal about planning quality of the Indian and the Egyptian experiences is not a clear-cut one. In general, through each experience has got two turning point errors (of the observed not planned type)out of 15 points, both are not as bad as no-change extrapolation. However, it is also evident that they are from "perfect-planning" experiences, if there is any such thing in practice. Each experience has seven overestimations, two of which are turning point errors, as just mentioned. The Indian experience has seven underestimations, and the Egyptian eight. Also, the Indian experience has a perfect-planning point. Nevertheless, the Egyptian experience seems to be very slightly better than the Indian. However, the ordinary graphical representation of both the planned and actual annual rates of change of each case in Figs. VII-B-3 and VII-B-4 in Appendix B below suggests that the actual rates of change in the Egyptian national income are more erratic than those in the Indian. Figs. VII-B-5 and VII-B-6 may shed more light on this point and on the quality of planning of the two experiences in general.

In the Indian case, from Fig. VII-B-5, it is clear that the first phase even though it has one turning point error, is the best of the three. The third phase is evidently the worst. The

quality of the point of the second is between these two extremes. In the Egyptian case, from Fig. VII-B-6, the order of the three phases on the quality scale is quite the opposite to the Indian. The third is obviously the best ; then follows the second and the first, respectively. Comparing the two cases, one finds that the Indian first phase is much better than the Egyptian. The second-phase targets were seriously overestimated in the Indian case, and seriously underestimated in the Egyptian. But the Egyptian third phase is clearly better than the Indian.

Table VII.1 below summarizes the types of planning errors in the two cases during the three phases, under discussion.

TABLE VII.1

PLANNING ERRORS OF ANNUAL RATES OF CHANGE OF NATIONAL INCOME IN INDIA AND EGYPT, 1951-1966

Type of Planning Errors / Phase	(1) Zero-Planning Error (or Perfect Planning)		(2) Under-estimation Error		(3) Turning-Point (Under estimation) Error		(4) Over-estimation Error		(5) Turning-Point (Over-estimation) Error		(6) Total Points	
	India	Egypt	India	Egypt	India	Egypt	India	Egypt	India	Egypt	India	Egypt
Phase I	0	0	4	3	0	0	1	0	0	2	5	5
Phase II	1	0	2	3	0	0	1	2	1	0	5	5
Phase III	0	0	1	2	0	0	3	3	1	0	5	5
15-Year Period	1	0	7	8	0	0	5	5	2	2	15	15
%	7	0	47	53	0	0	33	33	13	13	100	100*

Note : (*) = Items do not add up to 100 because of rounding.

Source : Figs. VII-B-1, VII-B-2, VII-B-5 and VII-B-6 in Appendix B below.

The Performance Coefficient : Diagrams of the type just discussed have a considerable intuitive appeal. But one will frequently want to measure the quality of a set of planned changes by means of some number. The Performance Coefficient is one

of the techniques which are used for such purposes. [8] This coefficient for a set of observations is, in effect, the ratio between (1) the second moment of the differences between planned and actual changes, and (2) the second moment of the differences between no-change extrapolation and actual changes.

If one denotes the planned change in the year (t) by (P_t) and the actual change in that year by (A_t), then the planning error is (P_t-A_t). A preliminary measure of the seriousness of a given set of planning errors for a group of (n) observations is the mean square of this set. If one denotes this mean square by (F_1), then one gets :

$$F_1 = \frac{1}{n} \sum_{t=1}^{n} (P_t - A_t)^2 \qquad (1)$$

This is the second moment of the planning errors. It can be considered as an indicator of the way planning errors are dispersed around zero. [9]

In the same way, if one denotes no-change extrapolation in the year (t) by (E_t), and with the actual change in that year as (A_t), then the planning error, in this case, is (E_t- A_t). And if one denotes the mean square of a given set of planning errors for a group of (n) observations by (F_2), then one gets :

$$F_2 = \frac{1}{n} \sum_{t=1}^{n} (E_t - A_t)^2 \qquad (2)$$

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(8) For Professor Theil's description of this coefficient, see his "Who Forecosts Best ?" **Op. cit.**, pp. 194-99, and his **Applied Economic Forecosting, Op. cit.**, pp. 27-30.

(9) This measure, of course, diverges from the square of the standard deviations because the latter relates to deviations from the average.

As (E_t) always equals zero for each of all (n) observations, then equation (2) is reduced to :

$$F_2 = \frac{1}{n} \sum_{t=1}^{n} A_t^2 \qquad (3)$$

This is the second moment of the planning errors, in no-change-extrapolation cases. It can be considered as a preliminary measure of the difficulty of planning.

From equations (1) and (3), one gets the ratio between (F_1) and (F_2). Taking the square root of this ratio, one gets the Performance Coefficient (R) as follows :

$$R = \sqrt{F_1/F_2} = \sqrt{\Sigma \ (P_t\text{-}A_t)^2/\ A_t^2} \qquad (4)$$

The main characteristics of this coefficient are three. The first is a zero lower limit. R = o, if and only if planning is perfect (i.e., $P_t = A_t$ for all t). The second is a value of one. R = 1, when the planning procedure leads to the same mean-square planning error as no-change extrapolation. The third is no finite upper limit. R can take arbitrarily great values. This means that it is possible to do considerably worse than by extrapolating on no-change basis. Thus, by using R one measures the seriousness of a planning error in such a way as the zero corresponds with perfection and the unit with the loss associated with no-change extrapolation. And given the problems of plan formulation, R increases as planning is getting worse.

To measure the quality of planned annual rates of change of national income in India and Egypt, under evaluation, $(P - A)^2$ and (A^2) for the 15-year period are required to get the corresponding Performance Coefficients (Rs). Columns (8), (9), (10), (11), (12) and (13) of Table VII-A-40, mentioned above, provides us with such data. Accordingly, the Performance Coefficients (Rs) are calculated. These coefficients are shown in Table VII.2 below.

TABLE VII.2

PERFORMANCE COEFFICIENTS OF PLANNED ANNUAL RATES OF CHANGE OF NATIONAL INCOME IN INDIA AND EGYPT, 1951-1966

Phase	Performance Coefficient (R)	India	Egypt
Phase I	R_1	0.52	0.93
Phase II	R_2	0.65	0.65
Phase III	R_3	1.01	0.35
The 15-Year Period	R	0.77	0.73

The data of this table need no further explanation. The various Performance Coefficients strongly confirm the general picture revealed by the Planning-Realization Diagrams, discussed above. The Performance Coefficient of Egyptian planned annual rates of change of national income for the 15-year period (0.73) is slightly smaller than the Indian (0.77). This means that, judging by national income results, the Egyptian planning experience is slightly better than the Indian.

Within these two 15-year periods, the Indian and the Egyptian five-year phases have different planning qualities. Again, the picture which emerges from the data of Table VII.2 is quite similar to that shown by the Planning-Realization Diagrams of Figs. VII-B-5 and VII-B-6, mentioned above. In the Indian case, the order of the three phases on the quality scale is the first phase, with Performance Coefficient of 0.52 ; The second phase, with Performance Coefficient of 0.65 : and the third phase, with Performance Coefficient of 1.01. Evidently, the worst phase is the third. Planning error during this phase is even worse than the planning error that would have been observed if the planners had confined themselves to no-change extrapolation ($R = 1$). In the Egyptian Case, the order of planning quality is quite the reverse, with the third phase as the best of the three ($R_3 = 0.35$) ; then follows the second

(R_2 = 0.65) ; and the first (R_1 = 0.93). From this account, one finds that the Indian first phase is much better than the Egyptian. The Indian second phase is more or less similar to the Egyptian.[10] But, the Egyptian third phase is much better than the Indian.

From this account, one should have a rough idea about the relative quality of the Indian and the Egyptian planning experiences, in terms of planned and actual national income data. However, to give more substance to this general picture, a closer examination of the detailed targets and achievements of the three phases is needed. This will be attempted in the following Section. The evaluation method used is the simplest one, namely, the degree of fulfilment of the planned value of the variable, under evaluation.

II — RELATIVE FULFILMENT

To begin with, let us once more take **national income** data. From Table VII.3 below, national income targets are under-fulfilled in two phases out of the three in each experience. The case of over-fulfilment of the target is that of the first phase in the Indian experience and the second in the Egyptian. This over-fulfilment is basically due to the gross underestimation of the planned target, as mentioned in Chapter V. However, there are also other reasons for this phenomenon in each experience. In the Indian experience, among the most important reasons is a natural one, namely, a good monsoon. In the Egyptian, one of the main reasons is a technical one, namely, that the fifth year of the second phase is also the first in the third phase. Accordingly, national income of that year has been influenced by the upward change of planning efforts, particularly those concerning investment, in that year during the third phase (see Chapter V, Section II, and Chapter VI, Section I). This upward influence has not

(10) In the Egyptian case R = 0.6486 and in the Indian, = 0.6480. See data of Table VII-A-40, mentioned above.

been corrected as far as the actual national income of that year is concerned.[11]

TABLE VII.3

RELATIVE FULFILMENT OF PLANNED CHANGES OF NATIONAL INCOME IN INDIA AND EGYPT, 1951-1966

(At 1948/49 Prices)

Phase	Planned Change (1)				Actual Change (2)				Degree of Fulfilment 3) = (2) as a % of (1)	
	India		Egypt		India		Egypt			
	Rs. Crores	%	L.E. Mns.	%	Rs. Crores	%	L.E. Mns.	%	India	Egypt
Phase I	1,000	11.1	143	21.5	1,630	18.4	107	15.5	163	75
Phase II	2,657	24.8	128	16.0	2,250	21.5	251	31.4	85	196
Phase III	3,567	31.0	395	40.0	1,760	13.8	360	36.4	49	91

Notes : i — An absolute change is obtained as the difference between the base-year value and the end-year value, and a percentage change is the absolute Change as a percentage of the respective base-year value.

ii — The degrees of fulfilment are based on the data of absolute changes.

Sources : Tables VII-A-37, VII-A-38 and VII-A-39 in Appendix A below.

As for the under-fulfilment cases in both experiences, one can generally say that this state is partially due to over-ambitious and consequently over-estimated targets. By far the worst performances are those of the Egyptian first phase and the Indian third phase. In fact, in the fifth year of each of these two phases, national income actually declined (see Table VII-A-39). However, there were exceptional circumstances which contributed to these poor performances. In the Egyptian case, they were unfavourable terms of trade (after the Korean boom), increasing defence expenditure, and military build up, in general ; and poor cotton crop, and a slower industrial growth in the fifth

(11) As it is virtually impossible to quantify this influence, the correction has not been attempted. See Chapter V, and Table VII-A-39, mentioned above.

year (1955/56), in particular.[12] In the Indian case, they were adverse weather conditions during three out of five years with unprecedented drought in the fifth year (1965/1966), increasing defence expenditure and serious hostilities in the second and fifth years, and external credit difficulties.[13]

Important as they are, these general factors can not possibly explain the whole story. More fundamental causes of the relative performances of the two economies during the planned period under evaluation are those underlying the Indian and the Egyptian planning assumptions and strategies, discussed in Chapters V and VI.

From the discussion of Chapters V and VI, it is not an exaggeration to suggest that in each experience the central place was unreservedly given to investment. Its amount, the nature of its relation with national income, its pattern of allocation, its pattern of finance, etc., were all considered as the main determinants of the course of development that the economy was planned to follow.

Table VII.4 below shows **total planned and actual investment** in India and Egypt during the first three phases. In the Indian case, the lowest degree of fulfilment is that of the first phase, which is as high as 81 per cent. The second and the third phases' targets are nearly fully implemented. In the Egyptian case, the lowest degree of fulfilment is that of the third phase, which is as high as 85 per cent. The targets of the first and the second phases are over-fulfilled.[14] In general, it appears that

(12) For details, see, e.g., Department of Statistics and Census, **Ten Years of Revolution.., Op. cit.;** Hansen and Marzouk, **Op. cit.,** Mead, **Op. cit.;** and this Chapter below, as well as Chapter VIII.

(13) For details, see, e.g., Planning Commission, **The Third Plan: Mid-term Appraisal, Op. cit.;** and its **Fourth Five Year Plan: A Draft Outline, Op. cit.;** as well as this Chapter below and Chapter VIII.

(14) Here again, as the fifth year of the second phase is also the first of the third phase, the actual investment in the former phase has been influenced by the stepping up of total investment during the latter. See Chapter V, Section II and Chapter VI, Section I. No correction has been attempted for several reasons. Among them are the extreme difficulty involved and the desire to maintain some consistency with other data in general and national income data in particular, which have not been corrected. See Footnote (11).

the Egyptian investment performance is more satisfactory than the Indian. This may be so partly because the Egyptian planners were more realistic, and sometimes over-cautious (as in the second phase), in their investment targets than the Indian. This seems to be in general conformity with the remark on the relative performances with regard to planned changes in national income in the two cases, made above.

TABLE VII.4

RELATIVE FULFILMENT OF TOTAL PLANNED INVESTMENT IN INDIA AND EGYPT, 1951-1966

(At 1948/49 Prices)

Phase	Planned (1)		Actual (2)		Degree of Fulfilment (3) - (2) as a % of (1)	
	India (Rs. Crores)	Egypt (L.E. Mns.)	India (Rs. Crores)	Egypt (L.E. Mns.)	India	Egypt
Phase I	3,502	585	3,330	616	95	105
Phase II	7,136	596	5,805	686	81	115
Phase III	9,206	1,307	8,779	1,118	95	85

Notes : i — Data represent development outlay which is investment gross of current developmental outlay in the Indian case, and investment gross of replacement and depreciation in the Egyptian.

ii — To get the 1948/49 prices' data, the original data are deflated by the wholesale prices index. See Table VII-A-36, in Appendix A below.

Sources : For planned data, Chapters V and VI. For actual data, for India, Planning Commission, **Review of the First Five Year Plan, Op. cit.,** pp. 18-21, its **Second Five Year Plan, Op. cit.,** pp. 51-52, its **Third Five Year Plan, Op. cit.,** pp. 58-60, and its **Fourth Five Year Plan : A Draft Outline, Op. cit.,** pp. 41-44 ; and for Egypt, United Arab Republic, Ministry of Planning, **Progress under Planning,** (Cairo, 1964), (in Arabic), pp. 27-28, and its **Follow-up and Evaluation of the First Five Year Plan : . . , Vol. I, Op. cit.,** pp. 90-100, and Department of Statistics and Census, **Ten Years of Revolution . ., Op. cit.,** Table 11.

However, on a closer examination of the data of Tables VII.3 and VII.4, one can see that the direct relationship between investment and changes of national income, assumed throughout the two experiences, is virtually unfounded. For example, in the Indian experience, with equal degrees of fulfilment of total plan-

ned investment during the first and the third phases, one gets quite different results in terms of changes in national income The degree of fulfilment of the planned changes in national income is as high as 163 per cent in the first phase, and as low as 49 per cent in the third. In the second phase, the degree of fulfilment of total planned investment is 81 per cent and that of planned changes in national income, 35 per cent. Similarly, in the Egyptian experience, with over-fulfilled investment target during the first phase, one gets the lowest degree of fulfilment of national income targets. And with an over-fulfilment of investment target of 15 per cent during the second phase, one gets an over-fulfilment of national income target of as much as 96 per cent. In the third phase, the degrees of fulfilment of investment and national income targets are 85 per cent and 91 per cent, respectively.

These divergences can more clearly be seen from data on planned and actual national incremental capital-output ratios in India and Egypt. Table VII.5 below presents such data.

TABLE VII.5

PLANNED AND ACTUAL CAPITAL-OUTPUT RATIOS FOR THE INDIAN AND THE EGYPTIAN ECONOMIES, 1951 — 1966

Phase	Planned		Actual	
	India	Egypt	India	Egypt
Phase I	3.5 : 1	4.1 : 1	2.0 : 1	5.8 : 1
Phase II	2.7 : 1	4.7 : 1	2.6 : 1	2.7 : 1
Phase III	2.6 : 1	3.3 : 1	5.0 : 1	3.1 : 1

Notes : These ratios are based on total development outlay. The planned ratios, with the exception of that of the Egyptian third phase, therefore differ from those discussed in Chapters V and VI, as the latter groups were based on net investment.

Sources : Tables VII.3 and VII.4 above.

None of the planned ratios has actually been realized. The highest actual ratios, those of the Egyptian first phase and the Indian third phase, are the result of poor national income performance due to exceptional circumstances, as mentioned above. The only two ratios that have come nearer to their targeted values are those of the Indian second and the Egyptian third phases. However, this conformity is not, in fact, because of "good" planning, but rather is the result of nearly equal overestimations of the investment and national income targets, as shown in Table VII.3 and VII.4 above. The lowest actual ratios are those of the Indian first and the Egyptian second phases. In the Indian case, the difference between the planned and the actual ratios of that phase is partly the outcome of a greater utilization of the existing capacity, partly the result of good monsoons, and partly the consequence of underestimated national income target. In the Egyptian case, the difference is mainly due to gross underestimation of national income target.

From this information, one can safely say that, in the present Egyptian and Indian economic conditions, investment-income relationship does not admit of any simple explanation. Output that emerged at the end of a planned period seems to confirm the view that in these circumstances investment is not the only decisive factor in the growth of national output, as the Indian and Egyptian planners assumed for their plans. It will take a long time before further research and increased knowledge can help us in finding the exact nature of this relationship. Until then, the gap between plan and performance is bound to persist. Consequently, the use of aggregate growth models in general and of aggregate capital-output ratio in particular, for forecasting purposes for such economies as the Indian and the Egyptian will remain considerably limited. The factor underlying this state of affairs is the unpredictability of the res-

ponses of the different sectors to various stimuli in both cases. This factor can clearly be seen from the data on planned and actual investment and national income patterns, during the 15-year period under evaluation.

Table VII.6 below shows the general picture of **planned and actual patterns of allocation of investment,** by industrial origin during the first three phases in India and Egypt. In the Egyptian case, apart from the planned pattern of the first phase, all patterns are based on national data. In the first phase, the planned pattern is based on the development outlay of the public sector, for lack of detailed national data. Consequently, the large discrepancies between planned and actual patterns of this phase are mainly due to the nature of the development activities entrusted to the public and the private sectors at that time, with the former sector limited to infra-structural activities, and the latter left largely free to develop the rest, as discussed in Chapter V. In the Indian case, for lack detailed national data, all patterns shown in the table are those of the development outlay of the public sector. As the relative share of the public sector in national development outlay increases from phase to phase (see Table VII.10 below), these patterns become increasingly more representative of the national outlay as one goes from those of the first phase to those of the third.

From this table, one can see that the actual pattern of each phase in each experience is more or less in general conformity with the planned pattern of that phase. This means that the planned strategy of each phase (see Chapters V and VI) remained more or less the same during the implementation process. From the actual data of this table, it even seems that the strategy of each phase has been intensively and resolutely implemented.

TABLE VII.6

PLANNED AND ACTUAL PATTERNS OF INVESTMENT ALLOCATION, BY INDUSTRIAL ORIGIN, IN INDIA AND EGYPT, 1951 — 1966

(In Percentages)

Industrial Origin	Phase I				Phase II				Phase III			
	Planned		Actual		Planned		Actual		Planned		Actual	
	India	Egypt	India	Egypt	India	Egypt	India	Egypt	India	Egypt	India	Egypt
1. Agriculture and Allied Pursuits	44.6	23.8	43.9	10.9	21.9	23.5	20.0	15.5	23.0	23.1	20.4	23.4
2. Power		15.3		5.7	8.9	37.0	10.0		13.0	8.2	14.6	7.4
3. Village and Small-Scale Industries	8.4	8.4	5.0	24.3	4.1		4.0	29.8	4.0	25.9	2.6	26.7
4. Organized Industries and Minerals					14.4		20.0		20.0		20.1	
5. Transport and Communications	24.0	19.8	26.4	15.7	28.9	15.2	28.0	21.2	20.0	16.1	24.5	19.5
6. Other Services and Miscellaneous	23.0	32.7	24.7	43.4	21.8	24.3	18.0	33.5	20.0	26.7	17.8	23.0
Total Development Outlay	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Notes : i — The Egyptian data are, except for the first phase, for the economy as a whole.

ii — The Indian data are for the public sector.

iii — Item (6) includes housing and construction in the three phases, as well as inventories in the planned patterns of third phase.

Sources : See sources of Table VII.4 above.

In the Egyptian case, the cnstruction-transport-industrial strategy of the first phase is clearly embodied in the actual pattern. However, the agricultural share is less than one would have expected according to the basic elements of this strategy. One of these elements was the emphasis on achieving a strong and viable agriculture as a necessary condition of industrial development. In the second phase, this situation was partially corrected by putting greater emphasis on both industrial and agricultural development. However, the record of performance is not as relatively balanced as the planned pattern. The share of agriculture declined from a strong third place in the planned pattern to a poor fifth in the actual. In the third phase, a more balanced strategy was sought for the economy as a whole and within each sector (see Chapter VI, Section I). Here, the shares of the commodity sectors as well as transport and communications are larger in the actual pattern than in the planned. The relative share of agriculture in total actual development in this phase is much larger than its share in the second phase.

In the Indian experience, the agriculture-irrigation-transport strategy of the first phase is clearly expressed in the actual pattern. However, the smallness and decline of the industrial share are apparent rather than real. As discussed in Chapter V, and like the Egyptian strategy during this phase, industrial expansion was largely left to private initiative and resources. The main concern of the public sector plan was the development of the traditionally public-sector lines, i.e., the infra-structural activities. On the performance of the private sector during this phase, the Planning Commission has this to say : "The progress of investment in the private sector has been up to the initial expectations." [15] So, with a planned share of about 53 per cent in total net investment during this phase for the private sector (see Chapter V, Section I), it seems that the relative share of the industrial sector in total actual development outlay is much higher than that suggested by the data of the table.

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(15) Planning Commission, **Review of the First Five Year Plan, Op. cit.,** p. 3.

In the second phase, a drastic shift in strategy was adopted. This shift was based on "excessive" emphasis on basic and heavy industries. In view of the nature of the industrial activities of the public sector (see Chapters V and VI), it seems from the actual data of Table VI.6 that this excessive strategy was not only maintained but was also intensified during the implementation process of this phase, with the actual shares of organized industries and minerals as well as power being much larger than their planned levels. In the third phase, this strategy was continued and intensified, with disastrous end-results, as shown in Table VII.3 above. Though the importance of a sustained agricultural growth to the development of the economy as a whole was recognized by the Indian planners, they did not actually act accordingly. This is quite obvious from the planned pattern of the third phase. Apart from a slight improvement in the agricultural share, the planned pattern was even more biased towards basic and heavy industries than that of the second phase, as discussed in Chapter VI, Section I. In the actual pattern, the bias seems to be even worse, with serious decline in the agricultural share as well as that of village and small-scale industries, coupled with increases in the shares of power, organized industries and minerals, and transport and communications.

Viewing the relative performance of the Indian and the Egyptian economies, in terms of national income, in the light of these investment patterns during the first three phases, the picture is as follows. In the Egyptian case, it seems that the relative performance on the whole gets better as the investment pattern gets more balanced, with the degree of fulfilment of national income targets improving from 75 per cent in the first phase to 91 per cent in the third. In the Indian case, the relative performance gets worse as the investment pattern be-

comes more biased towards basic and heavy industries, with the degree of fulfilment of nationa income targets drastically declining from 163 per cent in the first phase to a mere 49 per cent in the third.

However, one may argue, as in fact we did in this Chapter above, that the relatively poor performances in the Egyptian first phase and the Indian third are mainly due to the exceptional circumstances of the end years of these phases. To make allowance for these circumstances, let us take the fourth year as a more normal end-year, as the Indian Planning Commission suggests.[16] Accordingly, the degree of fulfilment of national income targets in the Indian case would be about 65 per cent[17] which would still be the lowest of the degrees of the three phases (see Table VII.3). Even if one uses a more refined method by taking the average rate of growth of the first four years, projecting it for the fourth, and getting a national income for the fifth year, one gets a degree of fulfilment of about 83 per cent which, though greatly improved, would still be the the lowest.[18] This suggests that there probably were other basic factors which significantly contributed to this poor result. With long-gestation periods of the investment projects planned during this phase, it seems that the strategy adopted has played a crucial part in this result. Is contrast, the corresponding figures in the Egyptian case are 105 per cent and 138 per cent, respectively.[19] This would give the first phase a strong second place in the performance order, shown in Table VII.3 above. These data suggest that the exceptional circumstances of the

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(16) See Planning Commission, **Fourth Five Year Plan :..**, **Op. cit.**, p. 61.
(17) For the basic data, see Table VII-A-39 in Appendix A below.
(18) For the basic data, see Table VII-A-39, mentioned above.
(19) For the basic data, see Table VII-A-39, mentioned above.

Egyptian phase have played an important role in the end result, and, in general, the strategy adopted was basically a sound one.

Tables VII.7, VII.8 and VII.9 below show the relative **planned and actual patterns of national income and national income changes by industrial origin** during the first three phases in India and Egypt. The data of these tables confirm the national income results, discussed above. These data shed some light on the relative roles played by various sectors in bringing about these national income results, as well as provide more information on the investment patterns postulated. They reveal the underlying structural changes envisaged by the planners and those actually achieved.

In general, the actual order of the structural changes is in conformity with that planned. However, though industry is steadily growing (Table VII.8) and increasingly having a larger share in total change of national income (Table VII.9), agriculture still remains the major commodity sector and the most important activity in the economy (Table VII.7).

From Tables VII.8 and VII.9, one can see "negative" contributions to total change of national income of agriculture in the Indian third phase, of "commerce, transport and communications" in the Egyptian first phase, and of "village and small-scale industries" in the Indian second phase. This means an actual decline in the share of each of these sectors in the end year, compared with its level in the base year of the respective phase (see Table VII.7). The first two cases are partly due to the exceptional circumstances of their respective phases, as mentioned above. The third case indicates the relative negligence of such vital sector during the second phase, and suggests the excessive nature of the strategy adopted during this phase, as will be taken up below.

TABLE VII.7

PLANNED AND ACTUAL NATIONAL INCOME, BY INDUSTRIAL ORIGIN, IN INDIA AND EGYPT, 1951 — 1966

(In Percentages)

Industrial Origin	Base Year		Phase I (End Year)				Phase II (End Year)				Phase III (End Year)			
	India	Egypt	India		Egypt		India		Egypt		India		Egypt	
	Actual	Actual	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual
1. Agriculture and Allied Pursuits	49.0	31.3	48.5	47.9	. .	32.3	45.8	46.4	. .	29.5	45.0	40.1	28.5	27.2
2. Village and Small-scale Industries	9.9		8.6	8.8			8.0	7.2			8.2	7.7		
3. Organized Industries, Power and Minerals	6.8	13.7	9.6	8.0	. .	17.6	13.6	9.4	19.0	21.8	14.7	13.3	30.1	23.3
4. Commerce, Transport and Communications	18.8	29.8	18.7	18.8	. .	16.0	17.0	19.3	. .	18.1	18.5	18.3	15.5	17.7
5. Other Services	15.5	25.2	14.6	16.5	. .	34.1	15.6	17.7	. .	30.6	13.5	20.6	25.9	31.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0*	100.0	100.0	100.0

Notes : i — (. .) = not specified. However, an increasing share for industry and a decreasing one for agriculture were implied in both phases. See sources.

ii — (*) = data do not add up to 100.0 because of rounding.

Sources : For planned data, Chapters V and VI ; and for actual data, Table VII-A-41 in Appendix A below.

TABLE VII.8

PLANNED AND ACTUAL CHANGES IN NATIONAL INCOME, BY INDUSTRIAL ORIGIN, IN INDIA AND EGYPT, 1951 — 1966

(In Percentages)

Industrial Origin	Phase I				Phase II				Phase III			
	India		Egypt		India		Egypt		India		Egypt	
	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual
1. Agriculture and Allied Pursuits	14.0	15.7	. .	19.3	18.0	17.5	. .	19.9	28.6	—1.5	28.0	17.7
2. Village and Small-scale Industries	10.6	4.5	. .	48.5	30.0	—1.1	84.0	62.6	27.3	23.1	97.8	53.5
3. Organized Industries, Power and Minerals	29.8	40.0			62.0	42.9			85.2	60.8		
4. Commerce, Transport and Communications	6.8	18.7	. .	—38.2	23.0	24.9	. .	49.1	37.0	7.7	24.6	39.5
5. Other Services	3.2	26.3	. .	56,2	23.0	30.6	. .	17.9	27.8	31.9	23.1	42.2
Total	11.5	18.4	21.5	15.5	25.0	21.5	16.0	31.4	31.0	13.8	40.0	36.4

Notes : (. .) = not specified. However, a larger growth rate of the industrial national income and a relatively slower growth rate of the agricultural national income were envisaged in both phases. See sources.

Sources : See Sources of Table VII.7 above.

TABLE VII.9

SECTORAL CONTRIBUTIONS TO TOTAL PLANNED AND ACTUAL CHANGES IN NATIONAL INCOME IN INDIA AND EGYPT, 1951 — 1966

(In Percentages)

Sector	Phase I				Phase II				Phase III			
	India		Egypt		India		Egypt		India		Egypt	
	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual
1. Agriculture and Allied Pursuits	57.5	41.7	. .	39.0	35.0	39.1	. .	20.5	37.8	—5.1	28.5	15.4
2. Village and Small-scale Industries	10.1	2.5	. . (2 and 3)	43.0 (2 and 3)	12.0	—0.4	53.9 (2 and 3)	35.1 (2 and 3)	6.7	11.9	30.1 (2 and 3)	30.4 (2 and 3)
3. Organized Industries, Power and Minerals	16.9	14.7			22.0	16.0			25.5	41.5		
4. Commerce, Transport and Communications	11.2	19.0	. .	—73.5	16.0	21.8	. .	24.9	18.9	10.8	15.5	18.8
5. Other Services	4.3	22.1	. .	91.5	15.0	23.5	. .	19.5	11.1	40.9	25.9	35.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note : (. .) = not specified. However, a relatively increasing industrial contribution and a relatively decreasing agricultural contribution were expected. See sources.

Sources : See sources of Table VII.7 above.

In general, most of the Indian and Egyptian sectoral planned targets have not fully been realized, as shown in these tables. Few targets, however, have been over-fulfilled. With one or two exceptions, these over-fulfilled targets are those of services' sectors. Important among the reasons for this phenomenon are the rough and generally underestimated planned targets for services. More important still is the excessive over-estimations of targets for the commodity sectors, particularly, those for industry.

This is especially so in the Indian second and third phases, mainly for two interrelated reasons. Firstly, encouraged by the good monsoons during the first phase, the Indian planners put too much emphasis on basic and heavy industries which by their very nature have low income potentiality in the short run. Secondly, they expected larger flow of income from these industries than it can possibly be produced within a relatively short period. Not only did this strategy lead to under-fulfilled total national income targets, but it also contributed to the serious under-fulfilment of industrial targets in general.[20] One of the adverse effects of this strategy is the absolute decline of the share of "village and small-scale industries" in national income in the end year of the second phase, compared with its level in the base year of this phase (see Table VII.8). This means a negative contribution of this important wage-goods sector to total change of national income during this phase (see Table VII.9).[21]

In the Egyptian third phase, it is evident from the data of these tables that though the planned pattern of national income seems to be reasonable, the targets for commodity sectors, parti-

(20) From the data of these tables, the performance of the industrial sector during the third phase seems to be favourable. This is so only in relation to, and actually because of, the disastrous performance of agriculture. In absolute value as well as in physical output terms, the performance of the industrial sector was very poor, indeed. See Table VII.3 above, and this Section below.

(21) Possibly because, among other things, of a relatively smaller development provisions. See Table VII.6 above, and Chapter V, Section II.

cularly that for industry, were generally overestimated, and those for services' sectors, underestimated (see Tables VII.7 and VII.8).

It is customary (or rather convenient) to attribute these discrepancies between planned and actual sectoral income targets in the Indian and the Egyptian experiences to various factors such as weather conditions, war conditions, incompetent and inefficient planning organization, ambitious planners and/or policy makers, inefficient implementing agencies, incompetent and inexperienced public sector, delays associated with the implementation of programmes, difficulties in importing necessary machinery,spare parts and raw materials, difficulties in mobilizing financial resources and suitable personnel, etc. Indeed, each of these factors may, in some way, have influenced the final results achieved in India and Egypt. However, it would be incorrect to ascribe the relaitve performance of the Indian or the Egyptian economy during one or all of the three phases entirely on one or two of these factors. In fact, the relative performance of an economy during a planned period is the outcome of the totality of measures adopted, circumstances prevailing and the whole socio-political matrix of the country during this period. Of basic importance in this respect is the whole set of methods and techniques that were used to formulate the targets for the period, and the whole set of policy measures that were pursued to implement them.

Nevertheless, one may say with some confidence that one of the basic factors responsible for these discrepancies is the bases upon which the sectoral contributions to national income target were calculated. The Indian and the Egyptian planners evidently and excessively overestimated the expected contributions of some sectors and underestimated those of others, as shown above. [22] This is probably due to the limited knowledge

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(22) As there is no "perfect" planning in practice, we are referring here to the magnitudes of the planning errors rather than to the fact there are planning errors, in the two experiences.

available at present in both countries on the "precise" responses, in terms of output flows, of various sectors to different stimuli, particularly in terms of varying amounts of investment. A closer examination of the investment patterns in Table VII.6 and the output patterns in Table VII.7, VII.8 and VII.9 above seems to confirm the tentative remark made in this Chapter above, namely, that, in the present conditions of the Indian and the Egyptian economies, the relationship between investment and output is not a straightforward one as the planners in the two countries have assumed. From the data of these tables, it is evident that there is no correspondence between the investment patterns and those of output. This phenomenon raises doubts as to the validity of the postulated aggregate sectoral capital-output ratios in both cases. It also highlights the importance of thorough project-examination in the planning process.

Having discussed the investment patterns and their effects upon the relative performances of the two economies, in terms of national and sectoral output flows, the next step is to briefly examine the relative **distribution of total investment between the major implementing agencies**, namely, the public and the private Sectors. Table VII.10 below shows the relative planned and actual shares of the public and the private sectors in total development outlay in India and Egypt, during the first three phases. From this table, two things seem to be clear. The first is that the planned distribution patterns are in general conformity with those realized. But, while the data of the first two phases in both experiences indicate reasonable shares for the private sector, the data of the third phase show the excessive emphasis on the public sector. The second is the fact that the share of the public sector is rapidly growing from the first phase to the third phase. It is excessively so during the latter phase in both experiences, particularly the Egyptian. [23]

(23) This is mainly due to the nationalization measures of 1960, 1961, 1963 and 1964, as mentioned in Chapters IV and VI.

TABLE VII.10

PLANNED AND ACTUAL SHARES OF PUBLIC AND PRIVATE SECTORS IN TOTAL DEVELOPMENT OUTLAY IN INDIA AND EGYPT, 1951 — 1966

(In Percentages)

Sector	Phase I				Phase II				Phase III			
	India		Egypt		India		Egypt		India		Egypt	
	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual
Private Sector	48	48	53	64	33	40	42	43	35	32	11	10
Public Sector	52	52	47	36	67	60	58	57	65	68	89	90
Total	100	100	100	100	100	100	100	100	100	100	100	100

Sources: See sources of Table VII.4 above and of Table VI-A-15 in Appendix A below; and for India, Planning Commission, **Notes on Perspective of Development...., Op. cit.,** pp. 8-9 and 11, and for Egypt, Ministry of Planning, **The Fundamentals of the Second Plan, Op. cit.,** pp. 8-10 and 21-23.

Although one should not read too much in these data, few remarks are, however, imperative. With already difficult administrative problems and a small and limited public sector at the beginning of the 15-year period, these rapid increases of the responsibilities of this sector probably have adversely affected not only its performance but also that of the whole economy, in both countries. This general inference seems to be confirmed by the evidence on the Indian experience. Other things being equal, a relatively better performance was actually achieved with a relatively small and limited (to infra-structural activities) public sector, (the first phase). With a relatively much larger and industrially-involved public sector, the Indian economy experienced its worst performance, (the third phase). In the Egyptian experience, the reverse seems to be the case,

namely, with larger public sector, better performance was attained, and vice versa. However, this seems to be apparent rather than real. As mentioned above, if one makes some necessary allowances for the exceptional circumstances of the first phase, and for the gross underestimation of tragets for the second phase, one finds that the general inference made with respect to the Indian experience also holds in the Egyptian.

During the Egyptian third phase, the under-fulfilled overall and some sectoral national income targets, and the "negative aspects of the implementation process",[24] in general, were mainly due, among other things, to the unpreparedness and technical incapabilities of the public sector. This, in turn, was mainly caused by sudden and quite sizable responsibilities[25] which were entrusted to an otherwise small and inexperienced public sector. According to Ex-Prime Minister and the then Minister of Planning, Mr. Ali Sabri, among the serious bottlenecks experienced during ths phase were the "incomplete" organizational aspects of the public sector, the shortage of technical and managerial personnel required for its quick and sizable enlargement,[26] and the continuation of the inherited (unfavourable) centralized tendencies in public administration which stood in the way of a more efficient running of public concerns.[27]

Another important facotr underlying the relative performances of the two economies during the 15-year period is

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(24) This phrase is Ali Sabri's. See his **Years of Social Change and Evaluation of the First Five Year Plan,** (Cairo, 1966), (in Arabic), p. 85.

(25) This sudden enlargement was to the extent that, by Republican Decrees, in one day in 1961, virtually all the industrial sector went under the domain of the public sector. See Chapter IV.

(26) In these circumstances, the government had to staff most of the nationalized concerns by civil servants from various government departments. Those public servants, however, in Sabri's words, ". . have regrettably transferred with them the public administration routine and the bureaucratic practice. ." See Sabri, **Op. cit.,** p. 100.

(27) Sabri, **Op. cit.,** pp. 98-101.

the problem and patterns of finance of total development outlay. An important test of consistency is that total intended use of domestic and foreign resources should be equal to and not more than their availability. The expected requirements and the availability of resources during the three phases of each experience, clearly bring out the inconsistency underlying the resource mobilization plans, and consequently provide us with additional explanations for the relative performances of the two economies during these phases. The data of Table VII.4 above suggest that in the Egyptian case, the resource plans of the first and second phases are over-fulfilled, and that of the third is under-fulfilled. The general explanation for this state is that while the planners were over-cautious during the first two phases, they were too ambitious during the third. In the Indian case, the resource plans of the threee phases are under-fulfilled, particularly that of the second phase. The general reason in the case of the first phase was inefficient methods of resource mobilization. With respect to the second and third phases, besides this general reason, the planners were too bold in their suggested development outlays (see Chapters V and VI). In general, these discrepancies between planned and actual financial resources were mainly due to defective methods in the calculation of the yields of revenue from various sources such as taxation, surpluses of public enterprises, domestic borrowings, etc.[28] In these circumstances, it is impossible for actual yields to conform to the expected yields.

For lack of detailed data on various sources of finance, particularly in the Egyptian case, a detailed examination of the actual and planned patterns of finance is not attempted. Instead, Table VII.11 below is constructed to give a general idea about the relative planned and actual contributions of major (national) sources of finance during the three phases in India and Egypt.

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(28) For more information and sources, see Chapters V and VI.

TABLE VII.11

FINANCING PLANNED AND ACTUAL TOTAL DEVELOPMENT OUTLAYS IN INDIA AND EGYPT, 1951 — 1966

(In Percentages)

Source	Phase I				Phase II				Phase III			
	India		Egypt		India		Egypt		India		Egypt	
	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual
1. Domestic Resources	80	83	90	83	68	69	93	83	74	69	83	72
2. External Assistance	13	6	10	17	15	19	7	17	21	22	17	28
3. Deficit Financing	7	11	—	—	17	12	—	—	5	9	—	—
Total	100	100	100	100	100	100	100	100	100	100	100	100

Notes : i — (—) = nil or negligible.
ii — Item (3) includes only the part of the resources secured by printing fresh money.

Sources : See sources of Table VII.4 above.

From these data, one can see that, in the Egyptian case, expected domestic resources were very much overestimated in the three phases, particularly the third. The gap between the planned and actual domestic resources was covered by more external assistance, as shown in the table. This gap was a sizable one in the third phase, as the total development outlay of this phase was nearly equal to the total sum of those of the first two phases (see Table VII.4). This dangerous financial approach, however, has shown itself in the various stresses and strains which the economy has experienced towards the end of the third phase and at the beginning of the fourth. This consequently led to the darstic scaling down of the over-all and

sectoral targets of the latter phase, as discussed in Chapter VI, Section II.

In the Indian case, one of the fundamental objections to the Indian financial approach is the reliance on deficit financing in the form of creating new money. A certain amount of deficit financing is not only inevitable but healthy. But doubts arise as to whether such large magnitudes of deficit financing, particularly in the second phase, were warranted, in view of the following facts of the situation. There was hardly any excess capacity when the Second and Third Plans were inaugurated. Most of the projects, due to the biased nature of the strategy adopted, had long gestation lag, and therefore domestic output could not be increased within a relatively short period of five years. Available foreign exchange resources were earmarked for priority projects and were thus not available for imports of consumer goods to augment the supply. Despite substantial increase in external assistance, these factors coupled with deficit financing of the amounts envisaged adversely affected the relative performance of the economy during these two phases. As in the Egyptian case, these circumstances have seriously increased the various pressures on national resources to the extent that the suggested plan for the fourth phase had to be considerably cut down, as outlined in Chapter VI, Section II.

The effects of the patterns of investment and the methods used in their finance on the performances of the two economies were reflected in the cost of living as demonstrated by the behaviour of the wholesale prices indexes in India and Egypt during the 15-year period. Table VII.12 below shows the Indian and the Egyptian wholesale prices indexes at the end years of the three phases. From these data, one can see that the relative behaviour of prices more or less conforms with the relative performances of the two economies in terms of national income, discussed above, with higher prices corresponding with relatively poor performance, particularly in the Indian case.

TABLE VII.12

INDEX NUMBER OF WHOLESALE PRICES IN INDIA AND EGYPT, 1951 — 1966

(1948/49 = 100)

Country	Base Year (1950/51)	End Year		
		Phase I	Phase II	Phase III
India	112.8	93.3	126.0	166.6
Egypt	118.9	120.8	132.0	146.0

Notes and Sources : See Table VII-A-36 in Appendix A below.

With respect to employment, in both experiences, increasing employment opportunities was in fact an essential objective of planning, as stated in Chapters V and VI. But quantitatively, the employment question is among the weakest points in the two experiences. As late as 1961, the Indian Planning Commission admitted that, "the existing data are inadequate for building up a sufficiently detailed picture of the state of employment for the country as a whole and in its regional, urban and rural aspects." (29) And on evaluating the relative achievement of employment targets, the Commission states that, "the available data in regard to the employment situation...... are too inadequate for a precise assessment." (30) In the Egyptian case, the situation of the data on employment was by no means better. (31) However, from the scattered and meagre data available, Table VII.13 is constructed. This table shows a rough picture of the employment problem in India and Egypt during the 15-year period. This picture is, to be sure, very partial

(29) Planning Commission, **Third Five Year Plan, Op. cit.,** p. 154.
(30) Planning Commission, **Review of the First Five Year Plan, Op. cit.,** p. 13, and for similar remarks, see its **Fourth Five Year Plan :.., Op. cit.,** pp. 106-11.
(31) See Chapters V and VI ; and Hansen and Marzouk, **Op. cit.,** pp. 34-37.

due to the conspicuous absence of any information on the serious and worsening (in face of steady population growth) problem of underemployment. The Egyptian planners seemed to assume its absence in the Egyptian economy.(32) The Indian planners seemed to be content with making very general remarks regarding the seriousness of the problem and the difficulty of its measurement.(33) This problem will be further taken up in Chapter VIII.

TABLE VII.13

PLANNED AND ACTUAL CHANGES IN TOTAL EMPLOYMENT IN INDIA AND EGYPT, 1951 — 1966.

(In Mns.)

Country	Employment Change by End Year						Backlog of Unemployment by the End Year (Phase III)
	Phase I		Phase II		Phase III		
	Planned	Actual	Planned	Actual	Planned	Actual	Actual
Inida	7.85	4.5	10.00	8.00	14.00	14.50	9.50
Egypt	. .	—	. .	—	1.03	1.33	0.59

Notes : i — (. .) = not specified. ii — (—) = not available.,

Sources : For planned data, Chapters V and VI. For actual data, for India, Planning Commission, **Second Five Year Plan, Op. cit.,** pp. 109-13, its **Third Five Year Plan, Op. cit.,** pp. 155-56, and its **Fourth Five Year Plan : . . , Op. cit.**, pp. 106-07; and for Egypt, Ministry of Planning, **Follow-up and Evaluation of the First Five Year Plan : . . , Op. cit.,** pp. 56-60.

With reservations on the reliability of the data presented, it seems that in the Indian case, the actual change of the third phase was considerably larger than that of the first. It was even larger than the planned change. However, this favourable

(32) See Ministry of Planning, **Follow-up and Evaluation of the First Five Year Plan : . . , Op. cit.,** and its **A Draft of the General Trends . . , Op. cit.**

(33) See sources of Table VII.13 above.

performance seems to be marginal. The employment problem still remains quite serious and sizable. The backlog of unemployment has increased from 5.3 million in the first phase to 9 million in the second and 9.5 million in the third,[34] not to mention the whole problem of underemployment. Here again, the strategy adopted during the second phase has probably contributed to this serious situation, by over-emphasizing capital-intensive methods vis-à-vis labour-intensive, (see Chapter V). On the employment situation during this phase, the Commission has this to say : "But statistics apart, there is a general belief, which is strengthened by the limited number of employment opportunities reported to the employment seekers on them, that in terms of unemployment the economy suffered significant deterioration in the last five years."[35]

In the Egyptian case, with a serious under-employment problem (see Chapter VIII) and more than half a million backlog of unemployed persons, the employment situation at the end of the third phase seems to be not as encouraging as the data of the table suggest. In fact, considerable part of the actual increase should be classified as under-employment.[36]

Finally, Tables VII-A-42, VII-A-43 and VII-A-44 in Appendix A below present **a detailed picture of the relative achievements of the Indian and the Egyptian economies** during the three phases. In the Egyptian case, physical targets were not specified. Only in the third phase were planned changes in G.D.P. spelt out, as shown in Table VII-A-43. Nevertheless, the physical achievements during the three phases were estimat-

(34) For the figures of the first two phases, see Planning Commission, **Second Five Year Plan, Op. cit.**, p. 112, and its **Third Five Year Plan, Op. cit.**, p. 156.

(35) Planning Commission, **Third Five Year Plan, Op. cit.**, pp. 154-55.

(36) This is based on the effects of two major government measures taken during this phase, namely, (1) severe restrictions on sacking of workers for any reason, and (2) providing employment for "all" technical secondary schools and University graduates. See Sabri, **Op. cit.**, pp. 155-61, and Ministry of Planning, **Follow-up and Evaluation of the First Five Year Plan, Op. cit.**, pp. 59 and 61.

ed in detail, as shown in Table VII-A-44. In the Indian case, the targets and achievements during the three phases were worked out in detail in physical terms by the Planning Commission, as presented in Table VII-A-42. From these tables, one can see that the physical achievements of the two economies are more or less in conformity with their relative performances in national income terms, discussed above.[37]

From the foregoing discussion, the following **tentative remarks** are made. In the Indian case, the First Plan achieved considerable but qualified success. The performance of the Second Plan was not entirely unsatisfactory. However, it seems to be a qualified failure rather than a qualified success. The record of the Third Plan has not, **prima facie,** been good. With progress being much slower than expected in many fields, its performance is in fact disappointing. In the Egyptian case, the general picture is not very much different from that of the Indian. Apart from the limited success of the first phase, the performance of the economy during the second phase was more favourable than that over-cautiously expected. Over these ten years, the economy has done reasonably well. During the third phase, with more planned efforts, its performance was not entirely unsatisfactory. However, the economy ended up with considerable stresses and strains. These adverse effects, which were mainly due to over-bold plan, have clearly appeared during the formulation process of the fourth phase, as detailed in Chapter VI, Section II.

In the following Chapter, the actual results achieved during these 15 years of planned development in India and Egypt are to be further examined in the light of the two countries' major economic problems.

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(37) These physical data are to be further taken up in Chapter VIII.

CHAPTER VIII

PLANNING EFFECTIVENESS

National progress cannot be achieved through high sounding slogans. No people can start progress from vacuum, for vacuum leads people nowhere.

Gamal Abd-El-Nasser, **The Charter**, (1962).

A country which wants to progress wants to progress in a hundred ways. We have therefore to take into consideration the order of preference — what is first, what is second, and what is third.

Jawaharlal Nehru, **Speech in the Lok Sabha initiating the discussion on the Draft Outline of the Third Five Year Plan.** (August 22, 1960).

As shown in Chapter VII, the Indian and the Egyptian economies have experienced some positive changes in practically every field of activity during the first three planning phases. The crucial question to be posed here is how effective these achieved results have been in tackling some of the two countries' major long-term economic problems. Specifically, the selected problems will be the low per capita real income and the structural problems concerning agriculture and industry.

From Table VII-A-37 in Appendix A below, one can see the substantial growth of the Indian and the Egyptian economies, in terms of national income, during the 15-year planned period, 1951-1966. At constant prices, India's net national income increased by about 64 per cent between 1950/51 and 1965/66. Egypt's net national income increased by about 95 per cent between 1950/51 and 1964/65. Admittedly, though changes in total national income are an inadequate index of the economic changes that have occurred, the figures given above clearly

belie the thesis of stagnation and lack of growth of the two economies.

However, the growth of national income has been accompanied by a fairly rapid increase in population. Table VIII-A-45 in Appendix A below shows the size and the annual rate of growth of population in India and Egypt during 1951-1966. Between 1950/51 and 1965/66, India's population has risen by nearly 136 million or about 37 per cent. Between 1950/51 and 1964/65, Egypt's population has increased by about 9 million or about 42 per cent. In both countries, the result is therefore that the additions to per capita real income have neither substantial nor commensurate with earlier expectations.

Table VIII-A-46 in Appendix A below presents **the annual per capita real income and its annual rate of change** in India and Egypt from 1945/46 to 1965/66. Between 1950/51 and 1965/66, per capita income in India has increased by about 20 per cent. Between 1950/51 and 1964/65, per capita income in Egypt has increased by about 38 per cent. Though the Egyptian performance seems to be more satisfactory than the Indian, both achievements are in fact disappointingly less than what was needed, expected or sought. Looking back to the income distribution in 1949 shown in Table I.1 above, one finds the depressing fact that, even with the latest per capita income figures and assuming that other countries remained at their per capita income levels of 1949, India and Egypt are still very much in the underdeveloped low-income group. With per capita income of $ 63 in 1965/66 for India, and of $ 131 in 1964/65 for Egypt.[1] the two countries' relative positions among the countries of the World, particularly in relation to the developed group, have not appreciably improved. Dropping the unrealistic assumption concerning other countries' per capita income,

(1) The data of Table VIII-A-46 for the cited years are converted to U.S. Dollars according to the official exchange rates as follows: Rupee 1 = $ 0.210, and L.E. 1 = $ 2.871.

the relative positions of India and Egypt must have been considerably worse during the 1960's than in 1949. And the gap between the two countries and the developed group is definitely much wider than it was in 1949. (2)

Even this modest achievement of per capita income growth in each country has required a progressive increase in **total investment** and in **resource mobilization** over the 15-year period. In this respect, the two countries' performances, even though they fell short of planned targets as discussed in Chapter VII, seem to be reasonable and encouraging. Table VIII.1 below clearly shows the substantial increases in total investment, total domestic savings and total external assistance for India and Egypt during the 15-year period.

TABLE VIII.1

TOTAL INVESTMENT, DOMESTIC SAVINGS AND EXTERNAL ASSISTANCE IN INDIA AND EGYPT, 1951 — 1966

(In Percentages)

Item	India		Egypt	
	1950/51	1965/66	1950/51	1964/65
1. Total Investment As a % of National Income (= 2 + 3)	5.5	14.0	12.4	19.5
2. Total Domestic Savings As a % of National Income	5.2	10.5	11.7	15.4
3. Total External Assistance As a % of National Income	0.3	3.5	0.7	4.1

Notes : i — For national income data, see Table VII-A-37 in Appendix A below.
ii — Total investment is net in the Indian case, and gross of replacement and depreciation in the Egyptian.,

Sources : For 1950/51 data, Chapter III; for 1964/65 data, Ministry of Planning, **Follow-up and Evaluation of the First Five Year Plan :.., Op. cit.,** pp. 93 and 107; and for 1965/66 data, Planning Commission, **Fourth Five Year Plan : A Draft Outline, Op. cit.,** p. 14.

(2) See, e.g., U.N., **Statistical Yearbook, 1965,** (New York, 1965).

These data strongly support Professor Lewis's thesis, discussed in Chapter I, that "No nation is so poor that it could not save 12 per cent of its national income if it wanted to......". (3) Though impressive, these actual investments, in the light of national income changes, also indicate the costly nature of the implemented programmes and the relatively wasteful uses of so scarce a factor. This is particularly so in the Indian case, as detailed in the preceding Chapters (particularly Chapter V, Section II).

These aggregate indices, though significant in themselves, do not fully reflect either the two countries' basic economic problems or their efforts at economic development. Tables VII-A-42, VII-A-43 and VII-A-44 in Appendix A below leave no doubt about the impressive magnitude of change that has occurred during the 15-year period, not only in the size and character of the two economies but also in the size and character of practically every activity in each one of them. However, the structural problems of the two economies at the beginning of this period, outlined in Chapter III, have not substantially changed for the better at its end. In fact, these problems are still very much there This is clearly shown in Table VIII.2 below.

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(3) For the full quotation and more information on this point, see Chapter I, Section II.

TABLE VIII.2

NATIONAL INCOME, EMPLOYMENT AND LIVELIHOOD, BY INDUSTRIAL ORIGIN, IN INDIA AND EGYPT, 1951 — 1966

(In Percentages)

Industrial Origin	National Income				Total Employment				Livelihood of Population			
	India		Egypt		India		Egypt		India		Egypt	
	1950/51	1965/66	1950/51	1964/65	1950/51	1965/66	1950/51	1964/65	1950/51	1965/66	1950/51	1964/65
1. Agriculture and Allied Pursuits	49	40	31	27	72	69	51	52	70	70	63	62
2. Industry and Power	16	21	14	23	11	13	10	12	10		7	
3. Commerce, Transport and Communications	19	18	30	18	6	6	9	14	8	30	7	38
4. Other Services	16	21	25	32	11	12	29	22	12		24	
Total	100	100	100	100	100	100	100*	100	100	100	100*	100

Notes : i — (*) = data do not add up to 100 because of rounding.
ii — The 1950/51 employment and livelihood data are for 1947 in the Egyptian case, and for 1951 in the Indian.
iii — The 1965/66 employment data are for 1961 in the Indian case (the latest available).

Sources : Chapters III and VII; and for India, Ministry of Food and Agriculture, **Indian Agriculture in Brief, Op. cit.,** p. 11, and Ministry of Information and Broadcasting, **India: A Reference Annual, 1966,** (Delhi, 1966), p. 219; and for Egypt, Ministry of Planning, **Follow-up and Evaluation of the First Five Year Plan . . ., Op. cit.,** pp. 63 and 65, and Central Agency for Public Mobilization and Statistics, **The Annual Pocket Book of General Statistics of the United Arab Republic : 1952-1965,** (Cairo, March, 1966), (in Arabic), p. 21.

From this table, it is clear that agriculture still remains the major single sector in both economies. With an increasingly larger share in total investment during the three phases of the 15-year period (see Table VII.6 above), the share of the industrial sector in national income, though increased, is still relatively quite small in both cases. Furthermore, its shares in total employment and livelihood of population have not virtually changed during this 15-year period. These facts clearly point out the relatively capital intensive nature of the Indian and the Egyptian industrial development. From the data of this table and Table VII.6, capital intensity seems to have been more excessive in the Indian industry than in the Egyptian, (see also this Chapter below).

The relatively declining share of agriculture in national income by the end of the period is still produced by more or less the same percentage of total employment, and provides livelihood for about the same percentage of total population as in 1950/51. The first of these observations suggests a lower productivity per worker employed, and the second, a lower standard of living for the agricultural inhabitant, in comparison with the 1950/51 levels which were much lower than the pre-war levels (see Chapter III). The agricultural dependency ratio is therefore higher than its level in 1950/51 and much higher than its level during the pre-war period. Also, during these three time points (i.e., the pre-war period, 1950/51, and 1964/65 for Egypt and 1965/66 for India), productivity per worker and the standard of living of the inhabitant were much lower, and the dependency ratio, much higher in agriculture than in other sectors in each case as shown from the above data. These weaknesses in this major sector naturally affect national productivity, standard of living and dependency ratio. As for the relative positions of the two countries with respect to each other, the detailed contrasts between the sectors of the two economies (Table VIII.2) and the national and per capita incomes data, mentioned above, seem to suggest that Egypt is in a much more favourable position, concerning the three indicators just mentioned, than India.

However, this particular behaviour of agriculture and industry in the two countries can best be seen in the light of the growth and problems of these two important sectors and their basic components during the 15-year period. First, let us take **agriculture**.

In summary form, the major elements of the Indian and the Egyptian agricultural sectors are shown in Table VIII.3 below. The broad picture of these elements is quite clear. In general, there are positive changes in both the inputs and the outputs of the two sectors. Nevertheless, the structural problems are not only apparent, but also still largely the same as they were fifteen years ago. In fact, the general argument developed in Chapter III and the tentative conclusions reached there, are still by and large valid in this situation.

With almost stagnant cropped-cultivated areas ratios and steadily growing population, per capita cultivated and cropped areas have been deteriorating throughout the period. This suggests, particularly in view of a relatively small industrial sectors (see Table VIII.2 above), that the pressure of population on the land is seriously increasing in both cases. This observation may be endorsed by the tentative estimates of the "potential" surpluses of labour in agriculture in the two countries. These estimates are based, as discussed in Chapter III, on the assumption of re-organizing land and labour in the sense of consolidating scattered strips and redistributing land into economic units large enough to absorb fully the supply of labour of the cultivators and members of their families, and that seasonalities in cultivation and harvesting could be met by "over-time" and greater efforts from all the family members. (4) This assumption is not at all unrealistic as the Indian and the Egyptian experiences in farm management have shown during these fifteen years. (5) However, no further objective is attributed to these calculations than to indicate the order of the problem of underemployment.

(4) For details on the method of calculation and the assumptions made, see Chapter III, Section II.

(5) Important measures in this field are the consolidating schemes and co-operative farming in both countries. However these measures are still very much in their experimental stage. For more information and for references on this point, see Chapters V and VI.

TABLE VIII.3

SELECTED INDICATORS AND PROBLEMS OF GROWTH IN AGRICULTURE IN INDIA AND EGYPT, 1951 — 1966

Item	Unit	India 1950/51	India 1965/66	Egypt 1950/51	Egypt 1964/65
I — Relating to Agricultural inputs					
1. Total Cultivated Area	Mn. Units of Land	293.4	336.6	5.7	6.2
2. Total Cropped Area	Mn. Units of Land	325.9	385.7	9.2	10.4
3. Cropped — Cultivated Area	Ratio	1.11:1	1.15:1	1.61:1	1.68:1
4. Per Capita Cultivated Area	Units of Land	0.8	0.7	0.3	0.2
5. Per Capita Cropped Area	Units of Land	0.9	0.8	0.4	0.3
6. Irrigated Area to Total Cultivated Area	%	17.6	18.9	100	100
7. Utilized Water to Total Usable Flow of Water	%	17	33	1.8	2.4
8. Total Chemical Fertilizers Utilized	000' Tons	70	840	770	1,600
9. Average Utilization of Chemical Fertilizers Per Unit of Cropped Area	Kgs.	0.2	2.2	83.7	153.8
10. Loans Advanced By Credit Societies	Index	100	1,146	100	400
11. Estimated "Potential" Surplus of Labour to Total Rural Population	%	30.9	42.1	47.9	59.5
II — Relating to Farm Management					
12. Ownership Holdings of Size Less than 10 Units of Land to Total Area Cultivated	%	36.0	. .	44.2	66.6
13. Owners of Holdings of Size Less than 10 Units of Land to Total Owners	%	87.3	. .	97.1	96.9
14. Number of Agricultural Credit Societies	000' Nos.	105	215	1.7	4.7
III — Relating to Agricultural Outputs					
15. Rice Yield Per Unit of Land	Lbs.	596	776	3,917	4,668
16. Wheat Yield Per Unit of Land	Lbs.	592	750	1,636	2,451
17. Maize Yield Per Unit of Land	Lbs.	488	884	1,985	2,568
18. Beans Yield Per Unit of Land	Lbs.	430	509	1,227	1,887
19. Cotton Yield (Lint) Per Unit of Land	Lbs.	78	98	427	624
20. Sugar Cane Yield Per Unit of Land	Lbs.	2,938	3,818	69,100	81,000
21. Total Agricultural Production	Index	100.0	137.8	100.0	149.8

Notes : i — The unit of land is "acre" for India and "feddan" for Egypt. 1 Feddan = 1.038 Acres. ii — (. .) = not available. iii — The end year india data of item (14) are for 1964/65.

Sources : Chapter III ; and sources of Table VIII.2 above, and of Tables VII-A-42 and VII-A-44 in Appendix A below.

Besides the problem of underemployment, there is the equally serious problem of water supply for irrigation. Huge surpluses of usable water are available. Nevertheless, water is still largely a very scarce resource in India and Egypt. The reason is that water does not generally lend itself to economic use within the limited resources of the cultivators. To get the abundant usable water to actual use needs substantial amounts of capital. The High Dam Project in Egypt and the Bhakra Nangal Scheme in India are cases in point. Huge and expensive as they are, they only represent a very modest step in increasing the utilization capacity of existing water in both countries (see item (7) of Table VIII.3). Surely, the question here is the acute scarcity of capital and the problem of choice among various possible alternative investment projects. Within the general problem of choice between agricultural and industrial investments lies the problem of choice between heavy industries and major irrigation schemes. Bearing in mind that these projects are of a long-term variety and accepting the importance of agricultural development of the economy as a whole, there must evidently be a case for more capital for irrigation schemes in a country which depends so heavily on a very erratic source of water, namely, the monsoons, and another which has practically reached its full physical agricultural capacity, given the level of water used.

In addition to land, labour and water, one of the most important variables in the agricultural production in India and Egypt is fertilizers. From Table VIII.3, it is clear that considerable growth in the utilization of chemical fertilizers has been experienced in India and Egypt. However, India's per acre utilization, even though it has increased by more than ten times over the 15-year period, is still among the lowest in the world. On the other hand, Egypt's utilization, though among the heaviest in the World, is still far below the requirements of the exhausted

soil, and the levels of utilization of a number of more developed countries, such as Belgium and the Netherlands.[6]

With respect to farm management, land reform programmes in India and Egypt did not represent as revolutionary a change as was expected or as sometimes claimed. Admittedly, co-operative agricultural societies have substantially increased in number and in activity, particularly with respect to their credit facilities to cultivators. Tenan-landlord relationships have also improved. And a beginning towards consolidating tiny plots of land into economic production units has been made.[7] However, the whole exercise is by and large rather disappointing. This is particularly so in India. From the point of view of land ownership, only 0.65 million feddans or about 10 per cent of total cultivated area in 1964/65 in Egypt,[8] and 2.00 million acres or about 1 per cent of total cultivated area in 1965/66 in India[9] have actually changed hands under the land reform programmes. In general, there is still very wide gap between the aims of the programme in each country and their implementation.[10] Examples of evasions of these (decreed) aims are rents in the Egyptian case and rents and land ceilings in the Indian.[11] However, this is not an attempt to belittle the importance of the land reforms in the future development of Indian and Egyptian agricultures. It is only an indication of the difficult tasks ahead that will face India and Egypt in this crucial aspect of agricultural development.

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(6) For comparable data for these and other countries to those of items (8) and (9) of Table VIII.3 above, see U.N., United Nations Food and Agricultural Organization, **Production Yearbook, 1963,** Vol. XVII, (Rome, 1964).

(7) See Planning Commission, **Fourth Five Year Plan : A Draft Outline, Op. cit.,** pp. 125-34, for India ; and United Arab Republic, Ministry of Agriculture, General Department of Planning, Follow-up and Evaluation, **Progress Report of the Implementation of the Agricultural Production Development Plan in the Fourth Year (1963/64),** (Cairo, July, 1964), (in Arabic), pp. 77-81, for Egypt.

(8) Central Agency for Public Mobilization and Statistics, **The Annual pocker Book of General Statistics of the United Arab Republic : 1952-1965, Op. cit.,** pp. 52-56.

(9) Planning Commission, **Fourth Five Year Plan : A Draft Outline, Op. cit.,** p. 127.

(10) For more information and references, see Chapters V and VI.

(11) See Planning Commission, **Fourth Five Year Plan : A Draft Outline, Op. cit.,** pp. 127-28, for India ; and Hansen and Marzouk, **Op. cit.,** pp. 84-85, for Egypt.

On the output side, yields per unit of land for all crops have substantially increased in both countries, particularly in Egypt. Total agricultural output has increased by more than a third (37.8 per cent) of its level in 1950/51 in India, and by nearly a half (49.8 per cent) in Egypt, as shown in Table VIII.3. With a total population increase of 37 per cent in the former and of 42 per cent in the latter during the same period, these rates of increase in total agricultural output are by all means a very modest achievement. Furthermore, in both countries, growth of agricultural output was much slower than the overall growth of national output which was 64 per cent in the Indian case and 95 per cent in the Egyptian during the 15-year period, as mentioned above. Also, the relative positions of both India and Egypt have not materially changed with respect to the average yield per unit of land for all crops. In almost every crop, the Indian yield still remains one of the lowest yields in the world, and the Egyptian, one of the highest. (12)

From these selected indicators, one can see that some positive changes in the size and character of Indian and Egyptian agricultures have taken place during the period 1951 — 1966. However, in view of the problems of this vital sector and of the economy as a whole in each case, these changes are by and large marginal and far below what was planned or needed. One possible general explanation of this is the nature and state of agricultural development in the Egyptian case and the relatively less important place of this sector in the development strategy in the Indian. (13)

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(12) For comparable data for other countries, see United Nations Food and Agricultural Organization, **Production Yearbook, 1963, Op. cit.**
(13) For more information, see Chapters III, V, VI and VII.

As for suggested future policy measures, the theme is rather a repetitive one, (see Chapters III, V and VI). For many years to come, agriculture will continue to play the crucial role in, and to be the basic limiting factor of, the development process in both India and Egypt. The highest priority should therefore be given to the programmes for increasing agricultural production. Success in this field will promote self-reliance by lessening the need for, if not doing away with, food imports and by increasing the exports of agricultural and agriculture-based commodities, raise living standards by increasing domestic availabilities of these commodities, and supply the raw-material requirements of growing industrial activities.

In both countries, the potential that exists for increasing agricultural productivity is still very large. Of the things that need to be done for realizing such potential are expansion of irrigation and drainage facilities, better implementation of land reforms, better utilization and expansion of production of manuring and chemical fertilizers as well as other chemicals, increasing production and distribution of improved seeds, increasing credit facilities, and providing agricultural implements, tractors, as well as power, transport and storage facilities. Over and above these obvious measures, it is necessary to devise an integrated approach to agricultural production and development by improving and rationalizing consolidation schemes, agricultural co-operatives and the administrative aspects of farm management in general. Other important measures of more continuing and long-term nature are family planning, structural shifts of labour to other sectors, farmer education, and structural re-composition of crops and agricultural output in general along with the principle of comparative advantage. Some efforts along these lines have been made in both countries. But they are still too small to be as yet effective.[14]

(14) For information on this point, see Planning Commission, **Fourth Five Year Plan: A A Draft Outline, Op. cit.,** pp. 125-53 and 346-49, for India; and Ministry of Agriculture, **Progress Report...., Op. cit.,** pp. 7-106, for Egypt.

As for **industry** in India and Egypt, its relative smallness in terms of actual contributions to national income, employment and livelihood in the end year of the 15-year period can be seen from Table VIII.2 above. However, during this period, industrial growth in both countries was quite substantial. The growth of almost every line in this sector was very impressive as clearly indicated in Tables VII-A-42 and VII-A-44 in Appendix A below. This is probably due partly to the initial smallness of industrial production in the base year (1950/51) and partly to the relatively large investments in this sector during the 15-year period, (see Table VII.6 above).

Table VIII.4 below gives additional evidence of this phenomenonal growth and shows some structural changes in this important sector. From this table, one can see that both India and Egypt have put more emphasis on intermediate and capital goods industries.[15] But, while Egypt has tried to keep some balance among various lines of industries, India excessively emphasized these lines. The effects of this questionable strategy (see Chapters V and VI) show themselves in a relatively slower growth in total industrial value added and a relatively smaller contribution to total employment in India than what would have been otherwise, and in comparison with Egypt's performance in these respects. Consequently, the burden on agriculture was much heavier and the development of the Indian economy had a serious set-back during the last five years of this period (the Third Plan), as detailed in Chapters VI and VII.

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(15) It goes without saying that this grouping is gross aggregation of various lines of industries which vary from country to country. However, in view of the dearth of detailed comparable data, this is unavoidable. It is presented here only to give a rough idea about the development and structure of industry in the two countries, rather than to provide a specific classification of its components or a precise measurement of development of its various lines. As to what constitutes intermediate and capital goods industries in the two countries, see Tables VII-A-42 and VII-A-44 in Appendix A below; and also Chapter V.

TABLE VIII.4

SELECTED INDICATORS OF GROWTH IN INDUSTRY IN INDIA AND EGYPT, 1951 — 1966

(1950-51 = 100)

Item	India (1965/66)	Egypt (1964/65)
I — Physical Output		
1. Electricity	554	558
2. Petroleum	4,750	320
3. Iron and Steel	450	535
4. Cement	400	253
5. Chemical Fertilizers	1,911	563
6. Sulphuric Acid	648	364
7. Cotton Textiles	133	210
8. Sugar	327	214
II — Value of Output		
9. Consumer Goods	187	312
10. Intermediate Goods	693	460
11. Capital Goods	1,022	580
III — Other Aggregate Indicators		
12. Total Industrial Production	251	239
13. Value Added of Village and Small-scale Industries	127	332 (items 13 and 14 combined)
14. Value Added of Organized Industries, Electricity and Minerals	322	

Notes : i — Item (3) is finished steel only for India, and iron and steel products for Egypt.
ii — Items (9), (10) and (11) are net value added at constant prices for India, and gross value of production at current Prices for Egypt.
iii — Item (11) is machinery only for India, and engineering and electrical industries for Egypt.
iv — The base year for Item (12) is 1951/52, for Egypt.

Sources : Tables VII-A-41, VII-A-42 and VII-A-44 in Appendix A below and their sources.

Table VIII.5 below shows some structural features of the Indian and the Egyptian industrial sectors in 1961. The data presented are the latest data available. Though for as early as 1961, these data are still provisional and rough as indicated in the notes to the table. However, the picture which emerges from this table is quite clear.

TABLE VIII.5

SELECTED BASIC DATA ON THE STRUCTURE OF INDUSTRY IN INDIA AND EGYPT, 1961

Item	India	Egypt
I — Relative Position of Small-scale Industries		
1 — % Share in Total Industrial Employment	76	61
2 — % Share in Total Industrial Value Added	43	39
II — Basic Data on Large-scale Industries		
3 — Number of Factories	9,188	878
4 — Employment (000' Nos.)	2,878	302
5 — Wages (in Mns of National Currency Units)	4,710	51
6 — Value of Inputs (in Mns. of N. Currency Units)	25,130	316
7 — Value of Output (in Mns. of N. Currency Units)	34,160	471
8 — Value Added (in Mns. of N. Currency Units)	9,030	155
III — Structural Relationships in Large-scale Industries		
9 — Number of Workers per Factory	313	344
10 — Wages per Worker (Units of National Currency)	1,637	169
11 — % Share of Wages in Total Output	14	11
12 — % Share of Wages in Total Inputs	19	16
13 — % Share of Wages in Total Value Added	52	33
14 — Value Added As % of Total Output	26	33

Notes : i — Monetary data are in Rs. for India and £.Es. for Egypt. £E 1 = Rs 13.67.

ii — Small-scale industries are establishments of less than 50 workers but using power or less than 100 but not using power for India.

iii — Items (1) and (2) are obtained as residuals for Egypt.

iv — Item (5) includes salaries and labour benefits.

v — Item (6) includes depreciation.

Sources : For India, Table VII-A-41 in Appendix A below; Planning Commission, **Notes on Perspective of Development....**, **Op. cit.**, pp. 17-22; Central Statistical Organization, **Statistical Pocket-Book of the Indian Union, 1966, Op. Cit.**, pp. 40-42; and S.K. Iyengar, **Fifteen Years of Democratic Planning, Vol. II — Sectoral Developments,** (London: Asia Publishing House, 1966), pp. 691-95. For Egypt, Central Agency for Public Mobilization and Statistics, **Basic Statistics, 1964, Op. cit.,** **public, 1952-1965**, (Cairo, July, 1966), (in Arabic), p. 67; and Hansen pp. 122-23, and its **The Statistical Indicators of the United Arab Re-** and Marzouk, **Op. cit.**, pp. 125-27 and 137.

From these data, one cas see that the structure of industry in India and Egypt is more or less the same as it was in the early 1950's, with small industries having the major share in total industrial employment (see Chapter III). This seems to be an encouraging state of affairs in the face of the unfortunate factor proportions in the two countries. It is however not encouraging enough, mainly because of the relatively little attention the government in each country is paying to this vital industrial activity.[16] Important as it is, particularly in terms of employment potential and wage-goods production, it is still left with all sorts of disabilities which naturally keep it relatively stagnant and uneconomic.

In fact, the two industrial sectors largely remain thin in the middle, with too small establishments on one side and too big ones on the other, to be considered efficient. In both countries, particularly in India, the policies devised for small-scale industries (see Chapters V and VI) are still in fact intended measures rather than implemented ones. For example, as recent as August, 1966, the Indian Planning Commission was still saying: "The programmes for the development of various small industries during **the Fourth Plan** mainly relate to provision of direct financial assistance, development of institutional credit, development of intermediate technology, supply of scarce raw-materials, expansion of training programmes, decentralised manufacture of equipment and organisation of co-operatives".[17] If it has not specifically been mentioned that these intended programmes were for the Fourth Five Year Plan, one would have thought that they were for the First, (see Chapter V). This may indicate how such programmes were implemented, if at all, better than any statistical data.[18] As for the Egyptian case, the situation is not any better, it may be worse.[19] With virtually all the industrial organized sector

(16) See Chapters V and VI; and Table VII.6 above.

(17) Planning Commission, **Fourth Five Year Plan: A Draft Outline, Op. cit.**, p. 49, (my italics).

(18) See Tables VII.6 and VII.7 and their Sources.

(19) In contrast with the Indian case, a distinctive policy concerning this vital activity has not yet emerged even on the planning level. See, e.g., the National Planning Commission, **General Frame of the Five Year Plan...., Op. cit.**; and Ministry of Planning, **The Fundamentals of the Second Plan, Op. cit.**,

in the hands of the public sector, the danger of lopsided industrial development in the future, with excessive emphasis on too big establishments relative to the domestic and the potential export markets, is even greater than in the Indian case.

The data of Table VIII.5 also show that labour input in the Egyptian large-scale industries is relatively cheaper than in the Indian. Not only is labour input in terms of number of workers on average larger in the Egyptian case than in the Indian (item 9), but it also is relatively much smaller in terms of percentage shares of wages in total output, total inputs and total value added in the former case than in the latter (items 11, 12 and 13). However, this probably seems more apparent than real for these possible reasons : (1) the average wages per worker in the Egyptian industries is much higher than in the Indian (item 10) ; [20] (2) other inputs in the Egyptian industries, particularly raw materials may be relatively expensive compared to those in the Indian industries, which have a rich and varied raw-material base (see Chapter III) ; and (3) the existence of greater excess capacity in the Indian industries than in the Egyptian. [21]

Even if there was a slight advantage for the Egyptian industries, this must be adversely affected by the introduction of the Socialist Laws during the last five years, 1960-1965, (see Chapter IV). During this period, average wages per worker in manufacturing industries have increased by nearly 5 per cent per annum at 1959/60 prices. [22] The corresponding figure in the Indian case is only about 2 per cent annum, at 1960/61 prices. [23]

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(20) However, the relative wage gap between the two countries is much narrower than the relative per capita income gap. See Table VIII-A-46 in Appendix A below.

(21) See Central Statistical Organization, **Statistical Pocket-Book of the Indian Union, 1966, Op. cit.,** pp. 30-38, for India ; and Ministry of Planning, **Follow-up and Evaluation of the First Five Year Plan : . . . , Op. cit.,** pp. 90-99, for Egypt.

(22) Ministry of Planning, **Follow-up and Evaluation of the First Five Year Plan : . . . , Op. cit.,** pp. 66-67.

(23) Central Statistical Organization, **Statistical Pocket-Book of the Indian Union, 1966, Op. cit.,** pp. 128-29.

More information on the degrees of capital intensity in the Indian and the Egyptian industries is given in Table VIII.6 below. This table shows some structural relationships in some principal industries in India and Egypt.[24] According to gross and net average capital-output ratios, with the only exception of textiles, the Indian industries are much more capital intensive than the corresponding Egyptian industries. However, according to capital per worker, it seems that the case is quite the reverse for every industry. But as the data on the latter relationship are in national currency units and involve direct comparison between the absolute figures of the two countries (see Chapter II, Section III), it seems that the former relationship is more representative and more comparable.

The data of capital-output relationships are in conformity with the fact that excessive emphasis on basic and heavy industries was made during the five years ending in 1961 in India, compared with the strategy adopted during the same period in Egypt. This emphasis was particularly excessive with respect to chemical and iron and steel industries. As discussed in Chapter VI, this dangerous strategy was also adopted during the period 1961-66, with disastrous results (see Chapter VII). In the Egyptian case, a more balanced strategy was pursued during the same period. One would, however, imagine that capital-output ratios in the Egyptian industries have moderately increased during this period as the industrial sector had a larger share in a larger total investment, compared with those of the previous period (1956-61), (see Tables VII.4 and VII.6 above). But surely these increases are not as large as those of the Indian ratios. However, the Egyptian planners, unfortunately, seemed to reverse their strategy for the next period (1965-72), by putting "undue" emphasis on basic and heavy in-

(24) Admittedly, the following grouping of industries is not a happy one as the industrial mix and final products of practically every line of activity presented in the table is different in the two countries. However, as we are not seeking detailed line by line comparison and as we are only trying to indicate in general the relative capital intensities in major branches of industry in the two countries, this grouping should not affect the course of our discussion. See footnote (15).

dustries. On the other hand, the Indian planners have tried to correct theirs for the next period (1966-71), but without much success, as detailed in Chapter VI.

TABLE VIII.6

SELECTED STRUCTURAL RELATIONSHIPS IN SOME PRINCIPAL INDUSTRIES IN INDIA AND EGYPT, 1961

Industry	Capital — Gross Output Ratio		Capital-Net Output (Value Added) Ratio		Value Added Per Worker		Capital Per Worker	
	India	Egypt	India	Egypt	India (Rs.)	Egypt (L.E.)	India (Rs.)	Egypt (L.E.)
1. Textiles	0.43	0.59	1.41	2.00	2,679	348	3,767	680
2. Tobacco	0.34	0.04	1.51	0.15	1,826	2,305	2,749	335
3. Food Products	0.36	0.15	2.53	0.71	2,520	545	6,369	387
4. Chemicals	1.58	1.00	5.60	2.50	5,906	1,131	13,310	2,830
5. Electric Products	0.71	0.27	2.24	0.83	4,461	786	10,000	670
6. Iron and Steel Products	1.05	0.22	4.65	0.71	3,515	472	1,637	331

Note: L.E. 1 = Rs. 13.67.

Sources: For India, Iyengar, **Vol. II, Op. cit.**, pp. 691-95; and for Egypt, Department of Public Mobilization and Statistics, **The Statistical Indicators of the United Arab Republic, 1952-1963,** (Cairo, July, 1964), (in Arabic), pp. 55-57.

The argument against this type of strategy in the present conditions of the two countries has been made in some detail in Chapters V and VI, and needs no repetition. Among the obvious consequences of this course of development are serious stresses and strains in the economy which manifest themselves in marked rising prices, severe shortages in necessary raw materials for production and essential commodities for consumption, rapid depletion of foreign exchange reserves and serious balance of payments difficulties, significant degree of unutilized capacity in various industries, and wasteful use of capital in general. All these difficulties have been experienced by the Indian economy since 1957, and have been gathering dangerous momentum since 1964 in the Egyptian economy, (see Chapters VI and VII). However, the Indian situation is relatively worse in this respect than the Egyptian, as mentioned above. In particular, as shown in Table VIII.6 above, a low value added per worker coupled with high capital-output ratios in the Indian industries relative to the corresponding Egyptian industries is an indirect indication

of the existence of larger degrees of unutilized capacity in the former than in the latter. This situation has probably been worsened during the period 1961-66. (25)

The moral of the foregoing discussion on the structure and development of industry in India and Egypt should be quite clear. Both countries, particularly India, are trying to do too much, too soon and in a big way which exceeds the actual capacity of the economy and seriously strains national resources. In fact, there is nothing against industrialization and even the establishment and expansion of basic and heavy industries, if the developing economy so requires in due course of its development process. But what is objectionable and even faulty is to put excessive emphasis on basic and heavy industries in a comparatively very short period during the early stages of the development process. In sum, a more rational industrial strategy geared to the economy's particular factor proportions, centered on other sectors' basic needs and the country's raw-material base, having a reasonably longer perspective, and based on selected and carefully studied import substitution and export promotion policies is badly needed for both India and Egypt.

The performances of the Indian and the Egyptian economies in general and their commodity sectors in particular, outlined above, have naturally affected if not entirely determined the magnitude of growth, size and structure of **foreign trade** of the two countries during the 15-year period, 1951-1966. Table VIII.7 below shows the general picture of foreign trade of India and Egypt in the base and end years of this period. In both countries, the widening of the gap between exports and imports by the end of the period is an indication of the seriousness of the balance of payments problem. This situation was largely produced by a virtual stagnation of exports and a marked growth of imports. While imports has largely maintained its relative position in the economy measured as a percentage in national income, exports has a substantially smaller one. by the end of the period.

(25) For detailed information, see, e.g., Planning Commission, **Fourth Five Year Plan : . . . , Op. cit.** ; Iyengar, **Vol. II., Op. cit.** ; and Chapter VI.

TABLE VIII.7

GROWTH OF FOREIGN TRADE OF INDIA AND EGYPT 1951 — 1966

(At Current Prices)

Item	India (Rs. Crores)		Egypt (L.E. Mns.)	
	1950/51	1965/66	1950/51	1964/65
1. Imports	672.9	1,394.0	218.5	400.8
2. Exports	601.7	809.6	191.4	265.2
3. Total Value of Foreign Trade	1,274.6	2,203.6	409.9	666.0
4. Balance of Trade	—71.2	—584.4	—27.1	—135.6
5. Imports as a % of National Income	7.1	7.0	26.5	20.3
6. Exports as a % of National Income	6.3	4.1	23.3	13.5
7. Total Foreign Trade as a % of National Income	13.4	11.1	49.8	33.8

Sources: For national income, data, see Table VII-A-37 in Appendix A below. For foreign trade data, for India, Planning Commission, **Fourth Five Year Plan: A Draft Outline, Op. cit.**, pp. 94 and 102, and Ministry of Information and Broadcasting, **India: A Reference Annual, 1966,** (Delhi, 1966), pp. 325-26 and 332-33; and for Egypt, National Bank of Egypt, **Economic Bulletin,** Vol. XVIII, (Cairo, 1965), pp. 12-13, Hansen and Marzouk, **Op. cit.,** pp. 186-87, and Ministry of Planning, **Follow-up and Evaluation of the First Five Year Plan:..., Op. cit.,** pp. 111-12.

The size of foreign trade, though declining as a percentage of national income, is still relatively large in the Egyptian case. This, of course, makes the Egyptian economy more vulnerable to fluctuations in international trade than the Indian. Table VIII.8 below gives a more detailed picture on the structure of foreign trade of India and Egypt. The data presented clearly reveal the main features and the structural problems of the two economies. discussed above. Although the commodity composition of foreign trade of each country has registered some significant changes during the 15-year period, it still remains more or less as it was in the early 1950's. On exports side, the traditional commodities, namely, tea, cotton textiles and jute manufactures in the Indian case and raw cotton in the Egypitan

continued to be the principal export earners. On imports side, foodgrains, intermediate goods and capital goods are still increasingly the major three items on the Indian and the Egyptian imports' bills.

TABLE VIII.8

STRUCTURE OF FOREIGN TRADE OF INDIA AND EGYPT, BY MAIN COMMODITY GROUPS AND PRINCIPAL ITEMS, 1951 — 1965

Group and Item	Exports				Imports			
	India		Egypt		India		Egypt	
	1950/51	1964/65	1950/51	1964/65	1950/51	1964/65	1950/51	1964/65
I — Raw Materials								
1 — Raw Cotton	0.8	1.7	85.5	56.3	15.5	4.6	—	—
2 — Minerals	3.7	8.5	1.3	5.1	12.8	6.5	7.9	8.8
II — Intermediate Goods	18.5	14.2	1.0	4.7	19.7	22.0	26.3	31.6
III — Capital Goods	—	—	—	—	20.3	37.4	15.3	26.8
IV — Consumer Goods								
1 — Foodgrains	—	—	0.6	8.1	15.3	22.3	18.3	16.6
2 — Tea	13.5	15.3	—	—	—	—	3.6	3.0
3 — Cotton Fabrics	22.9	7.2	2.9	14.1	—	—	8.1	2.3
4 — Jute Fabrics	19.1	20.3	—	—	—	—		
V — Others		32.8	8.7	11.7	16.4	7.2	20.5	10.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Notes : i — (—) = nil or negligible.
ii — Item (II) includes only cement and petroleum products in the Egyptian case.
iii — Item (IV, 2) includes coffee ; and item (IV, 3) includes cotton yarn in the Egyptian case.
iv — Item (V) includes other agricultural products, manufactured consumer goods and intermediate goods.
v — The break-up of the items is not a happy one because the break-up in the sources varies from table to table in each case and between the two cases. For more detailed break-ups in each case, see sources.

Sources : For India, Ministry of Finance, **India : Pocket-Book of Economic Information, 1964, Op. cit.,** pp. 105-07, Planning Commission, **Fourth Five Year Plan : . . . ., Op. cit.,** pp. 93-94 and 102, and Ministry of Information and Broadcasting, **India : . . . ., 1966, Op. cit.,** pp. 334-37 ; and for Egypt, Central Committee for Statistics, **Basic Statistical Data,** (Cairo, May, 1962), (in Arabic), pp. 114-29, and Ministry of Planning, **Follow-up and Evaluation of the First Five Year Plan : . . . ., Op. cit.,** pp. 115-17 and 122-24.

From these data, one can see that the Egyptian economy is still a one-crop (cotton) economy. This weakness leaves the country at the mercy of fluctuations in supply of and demand for this product. On the other hand, the Indian economy is still heavily depending upon foreign markets to supply its growing population with an essential commodity such as foodgrains. In short, these data clearly show the general picture which emerged from our discussion of the structure and changes of the two economies, namely, a low-productivity-per-worker large agricultural sector and a relatively small and inefficient as well as capital-wasting industrial sector.

Finally, Table VIII.9 below gives some information about the standard of living in the two countries and other five countries, two developed and three underdeveloped. As in almost all international comparisons, the presented data suffer from a number of limitations and consequently must be regarded with caution. However, the general picture they depict seems to be clear. The relative positions of India and Egypt are still very much the same as during the early 1950's. The development gaps between them and the developed countries are getting even wider.

Within each country, however, there has been a moderate degree of development, as detailed in Chapter VII and this Chapter and as reflected in the indicators of the standard of living shown in Table VIII.9. But what has been achieved in each country, particularly India, is disappointingly less than what was planned and surely fell far short of what is needed. By stating this depressing fact, one is not trying to belittle the positive results achieved in both countries during this 15-year period. After all, one does not expect any country in the world to solve its structural problems, particularly if they are of the Indian and the Egyptian dimensions, in a mere 15-year period. All what one is trying to stress is the fact that to reach a satisfactory stage of economic development, the two countries are going to face a harder time and more difficult problems during the coming crucial years in the process of development of their

TABLE VIII.9

STANDARD OF LIVING IN SOME DEVELOPED AND UNDERDEVELOPED COUNTRIES IN 1961/62 SELECTED INDICATORS

Indicator	Developed		Underdeveloped				
	U.S.A.	U.K.	Philippines	Ceylon	Pakistan	India	Egypt
I — Net Food Supplies Per Capita							
1 — Cereals as Flour (Kgs. Per Year)	66	81	119	127	155	140	198
2 — Sugar (Kgs. Per Year)	42	48	14	18	13	18	10
3 — Meat (Kgs. Per Year)	26	75	15	2	4	2	10
4 — Milk (Kgs. Per Year)	8	8	..	1	2	3	3
5 — Calories Per Day	3,100	3,270	1,830	2,070	1,980	2,040	2,620
6 — Proteins Per Day (Grams)	92	89	43	46	44	53	77
II — Per Capita Consumption of							
7 — Energy Coal Equivalent (Kgs. Per Year)	8,263	4,948	169	118	75	161	284
8 — Crude Steel (Kgs. Per Year)	488	332	13	19	7	14	13
9 — Cotton (Lbs. Per Year)	22	9	3	..	6	5	11
10 — Newsprint (Kgs. Per Year)	..	26	1	..	—	—	2
III — Students in Higher Institutions							
11 — Per 10,000 Population	178	40	98	6	16	22	42
12 — Percent of Female Population	35	18	..	17	..	15	16
IV — Other Indicators							
13 — Circulation of Newspaper Per 10,000 Population	32	49	2	4	1	—	2
14 — Per Capita Annual Attendance in Cinemas	12	9	1	3	1	3	3
15 — No. of Motor Vehicles Per 10,000 Population	4,175	1,557	64	112	9	13	35
16 — No. of Telephones Per 10,000 Population	4,338	1,654	47	3	9	13	91
17 — No. of Radios Per 10,000 Population	9,846	2,915	218	380	41	68	659
18 — No. of Physicians Per 10,000 Population	12	11	1	2	1	2	4
19 — Per Capita Income (in $)	2,376	1,184	212	121	69	71	149

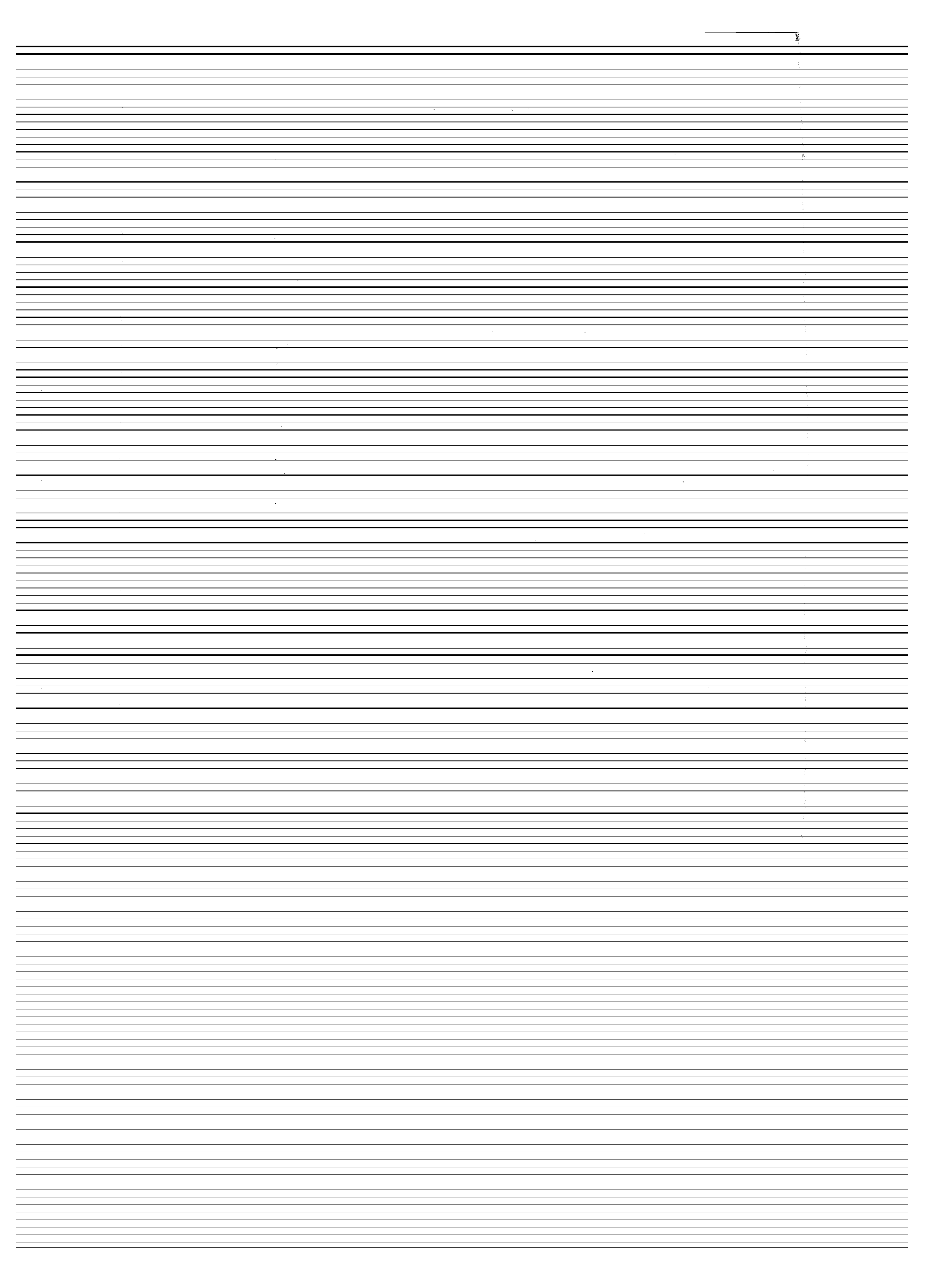
Notes : i — (. .) = not available. ii — (—) = less than 0.5 unit.

Source : Gov. of India, Ministry of Finance, **India : Pocket Book of Economic Information, 1964, Op. cit.,** pp. 163-71.

economies than would have happened had the Indian and the Egyptian planners (or rather decision-makers) altered their development strategies in general and their investment patterns in particular, especially during the 1960's, as discussed above.

In conclusion, the two countries' potentials for development are far from being realized and the real challenge and opportunities are still there. But, as Professor B. Higgins put it, in the process of development "there are no primrose paths". The task is not impossible. But surely it cannot be achieved by mere wishful thinking or ardent desire divorced from effort. Nor can it be achieved by over-stressing the role of a certain sector and the relative negligence of others as in the case of the public sector in Egypt since the early 1960's. And certainly, the two countries cannot afford a faulty strategy like that adopted in the Indian case since the second half of the 1950's.

There is no doubt that given first priority and a right approach to problems of development, the Indian and the Egyptian communities can draw upon the latent energies within themselves to an extent which ensures development at rates much larger than nice calculations of costs and returns or inputs and outputs sometimes suggest. At that time, the two countries' rich experiences will be much more valuable and interesting to other developing countries.





CONCLUSION

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SOME CONCLUDING REMARKS

In the preceding treatment, we have briefly attempted in Part I to analyse the basic features of the planning problem — the problem of economic underdevelopment —, to outline in general the possible ways of tackling this problem, to examine the basic elements of planning as a tool of policy for economic development and its possible defects and shortcomings in the developing countries, to review the limitations of the comparative approach with special reference to this study, and finally to examine the pre-planning economic structure and changes of the Indian and the Egyptian economies during the first fifty years of this century according to which the planners in the two countries had to operate.

After this background account, we have dealt in Part II with the Indian and the Egyptian planning experiences. Planning in historical perspective and the official views on planning as a tool of policy have first been reviewed. Then, we have examined the four planning phases from the beginning of the 1950's to the early years of the 1970's, with some emphasis on the basic features of planning outline, strategy and methods in each phase in general and the economic thinking underlying these planning activities in particular.

Finally, we have attempted to provide an overall appraisal of the two planning experiences according to the planned and actual national income data for the first three phases, 1951-1966, and to examine the degree of fulfilment of the detailed planned targets of the implemented plans of these phases. Then, the effects of the results achieved during this 15-year planned period on the long-term economic problems of India and Egypt have been evaluated.

The foregoing discussion of these points need not be repeated. However, some concluding remarks, by way of tidying rather than summing up, are in order.

The basic observations and findings of Part I are as follows. Up to 1950/51, the base year of the 15-year planned period, the Indian economy was stagnant if not declining, and the Egyptian was slowly and erratically developing. The economic problems of India and Egypt were acute, obvious and difficult. Economic growth in the sense of marginal changes as a remedy seemed to be out of the question. A big push embracing every element in the system was, as thought then, badly needed. Consequently, economic development in the sense of structural changes was simply a pressing and obvious necessity. In particular, there were strong cases for vitalizing and developing agriculture and for industrialization.

Also, a positive role of the government in each country in the development process was thought to be essential. The urgency and worsening of the economic situation in India and Egypt made government planning a very attractive proposition. Consequently planning has been rather enthusiastically adopted as a fundamental tool of economic policy.

Our analysis in Part II has suggested the following main points : (1) though there have been some moderate degrees of diversification and development in the Indian and the Egyptian economies during these fifteen years of planning, the pre-planning structural problems are still more or less the same, if not worse, at the end of this period ; (2) the two planning experiences have thrown serious doubts upon the usefulness of the types of planning adopted, though not upon the planning approach to the problem of economic development in general ; and (3) the role of the government in general and the performance of the public sector in particular in the development process of India and Egypt during this period have rendered this aspect of the Indian and the Egyptian planning strategies as questionable and dangerous.

These depressing results have been mainly caused, among other things, by two major distortions of the relatively reasonable course adopted during the first phase (1951-56), namely,

excessive emphasis on basic and heavy industries, and excessive and sudden enlargement of the public sector.

The first distortion has been experienced during the second and third phases and now during the fourth phase in the Indian case, and the fourth phase in the Egyptian. In the latter case, planning strategy was on the whole reasonably balanced during the first three phases. But, in the present phase, the fourth, the Indian excessively heavy -industry -biased strategy seems to have been emulated by the Egyptian planners at a time when the economy is particularly under severe pressures.

The failure of agriculture, and consequently the entire economy, to grow according to the expectations of the planners during the second and third phases in the Indian case is to be primarily attributed to investment patterns adopted. Our study has shown that though the Indian planners have come to realize the serious consequences of such patterns on the economy and its development, they have unfortunately devised a more or less similar pattern for the fourth phase. In the Egyptian case, no explanation, let alone reasoning, for this sudden and excessive shift in the scheme of priorities of the fourth phase has been given.

Our analysis has emphasized the need for reappraising such strategies. It is not intended to deny that India and Egypt should industrialize or should develop their basic and heavy industries. India has a strong case in this respect due to its varied and rich raw-material base, the size of its domestic market, etc. In the face of its relatively developed agriculture, its raw material base, its growing population problem, ect., Egypt has also a strong case for industrialization. In both countries, agriculture is overburdened with a serious underemployment problem, among other problems. The eventual solution of the economic poverty in India and Egypt lies in more industries. But the process of industrialization in the Indian and Egyptian circumstances presupposes a strong and viable agriculture. The success of this process will basically depend

upon how the Indian and the Egyptian planners are going to approach the factor-proportions problem in the two countries. In selecting industries for development, at least during this early stage of the development process, care should be exercised to choose those which will provide more employment opportunities and those which have relatively short gestation-lag.

What is really objectionable, in face of strong import possibilities, is the excessive shift of emphasis in the Indian and Egyptian strategies towards basic and heavy industries during such a relatively short time. In face of limited financial and other resources, together with explosive population growth, this shift has led and will continue to lead to misuse of these resources as well as to dangerous inflationary pressures. The crucial question of why such a development has to be accomplished within a period of 5 to 10 years is not even touched by the Indian and the Egyptian planners. Nor have they really asked themselves the equally crucial question why, once the possibility of imports is recognized, the period for establishing and developing such lines should not be increased to, say, 30 or 40 years.

The second distortion in the two planning experiences is the excessive emphasis on the role of the public sector in the development process. This is particularly so in the Egyptian experience during the third phase and now the fourth. In the two countries, the expansion of this sector has been too rapid and too sudden. This enlargement, with civil servants lacking competence, skill and imagination for running an enterprise in particular, and the (unfavourable) bureaucratic practices of public administration in general in the two countries, has not only caused delay in the implementation of projects but also has encouraged waste and mis-direction of resources.

With virtually all the industrial, commercial and financial activities in the hands of the public sector, Egypt has heavily relied for the second time in its history (the first was that during the regime of Muhammad Ali) on extreme centralization

in her development process with disastrous consequences which in the present case will be seriously felt during the coming few years. In India, though the relative strength of the public sector is not as substantial as in Egypt, its performance vis-à-vis that of the private sector in industrial activities throughout the 15-year period was on the whole unsatisfactory and discouraging.

This suggests the obvious necessity of relaxing these extreme centralizing tendencies in the development process in the two countries by limiting the activities of the public sector and ensuring and encouraging private enterprise. One possible and highly operational way of doing this is by emulating the Japanese pattern of development, whereby the government establishes enterprises and then sells them to native entrepreneurs as going and profitable concerns.

The moral is clear. Development must not be hampered by the inability of the public sector to expand, combined with a dogmatic unwillingness to let private sector do the job. It is the present writer's firm belief that private initiative should be given all the possible encouragements and freedom in the process of development, if the economic problem in India and Egypt is going to be seriously tackled during the coming decades. A kind of planning along the lines presented in this study is needed. But equally important is a reasonable degree of freedom of market forces and individual initiative.

Obviously, this does not mean a complete Laissez-faire, if there is any such system in practice. Nor does it imply a complete liquidation of the public sector. Indeed, the public sector has a crucial role to play in the development process, particularly in fields of traditional interest to the government such as overheads and infra-structural activities, or activities for which the private sector is unable or unwilling to put up the resources required and run the risks involved. The suggested strategy in this respect is something along the lines of that adopted during the first phase in the two countries. The success of this

role will largely depend upon the degree of autonomy given to public enterprise and upon whether it is run on strictly commercial lines or not.

On this point, one can not resist quoting Professor J.K. Galbraith. He says : "In the old days the principal enemy of public enterprise was, no doubt, those who disapproved socialism. Now it is Socialists themselves. For it is Socialists who refuse to consider seriously the peculiar requirements of the modern productive enterprise, whether public or private ; who decline to give it the autonomy it must have ; who destroy it by meticulously passing on its decisions and thus forcing upon it an intolerable and unworkable centralisation ; who decline to see that the organisation of public enterprises must keep pace with new conditions and new tasks ; who are careless about the standards to which management of the enterprises must be held ; and who, on occasion encourage workers and consumers to appropriate the surplus on which expansion and growth depend and without which there will be stagnation. Above all it is Socialists who are responsible for the paralysing belief that success is a matter of faith, not works." (1)

Our analysis suggests a gloomy prognosis for the Indian and the Egyptian planning. However, one is not justified as yet in talking of the "failure" of planning in India and Egypt for at least two reasons. The first is the relatively short period during which planning was attempted. The second is the positive results achieved in almost every field of activity in the two economies, compared with past performances. Certainly, there have been and unfortunately still are costly mistakes, two of which have just been referred to. But, if planning in India and Egypt is to have a better and significant impact on the two economies, then the future plans have to be formulated and implemented on more realistic as well as imaginative lines.

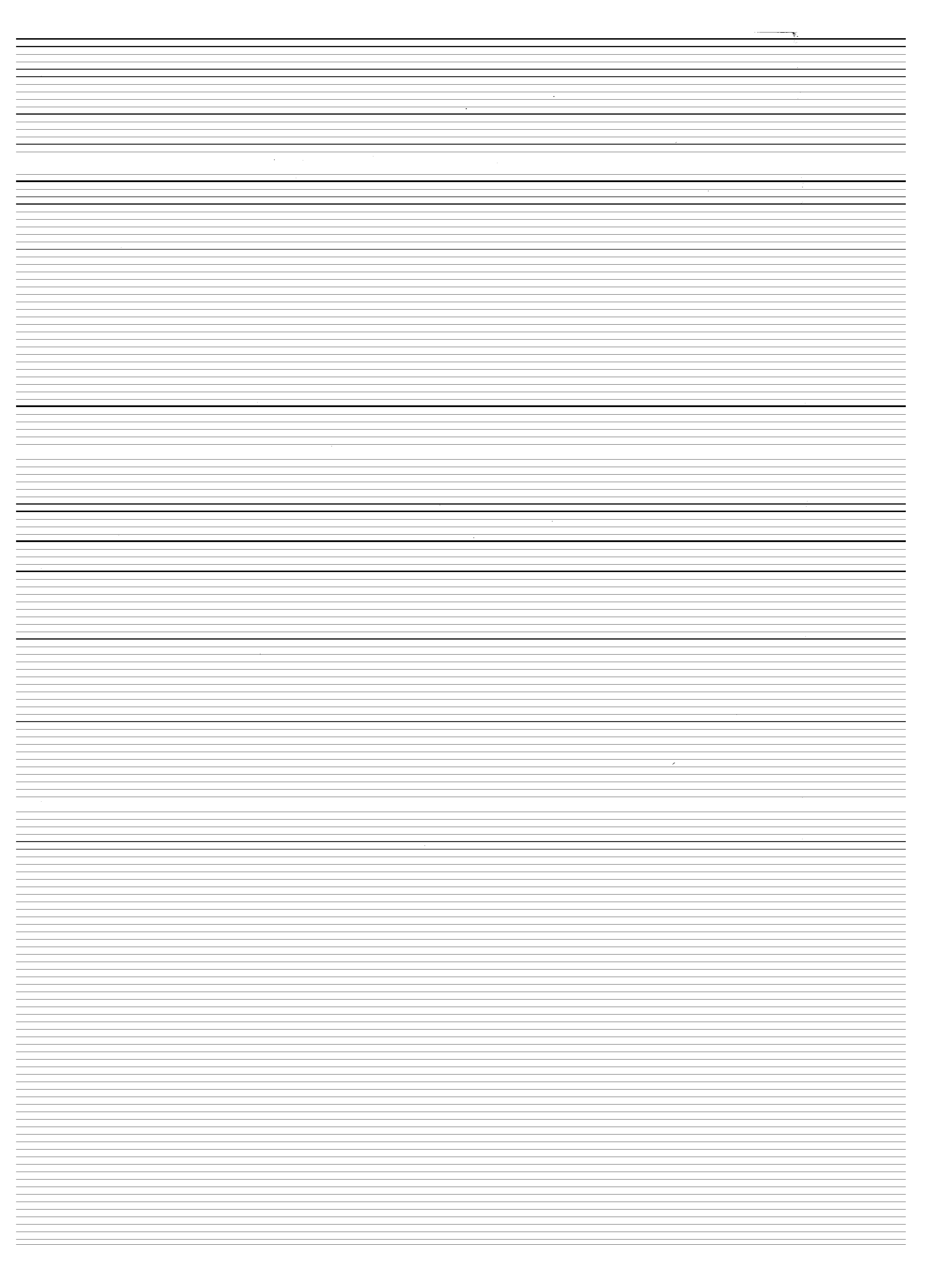
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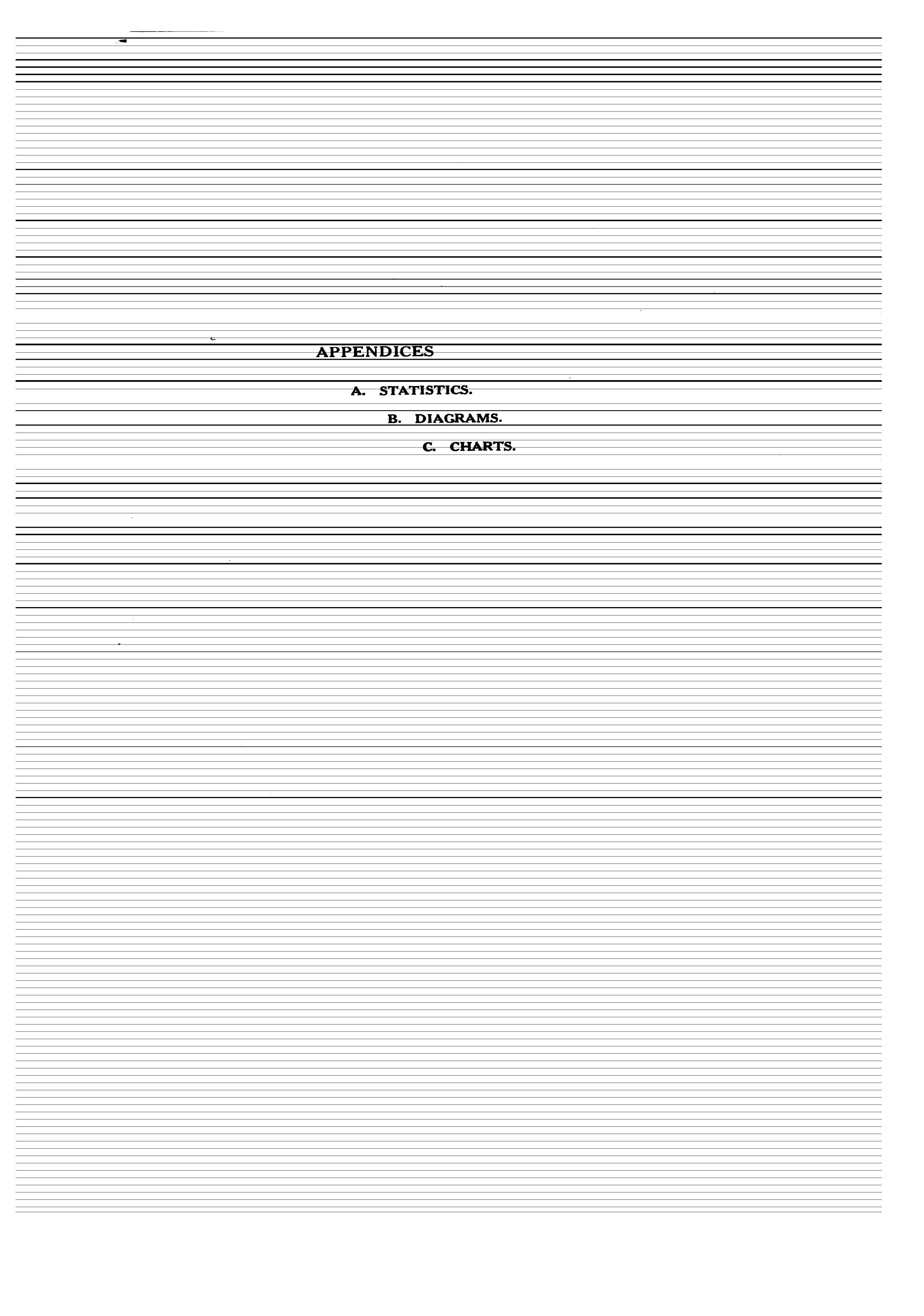
(1) J.K. Galbraith, "Some Notes on the Rationale of Indian Economic Organisation". in Indian Statistical Institute, **Economic Strategy and the Third Plan, Indian Statistical Series No. 21,** (London : Asia Publishing House, 1963), pp. 6-7.

The India and the Egyptian planners may be reminded of Lenin's famous Port Arthur argument.[2] In attempting an appraisal of the strategy of the economic policy adopted during the period 1918-21 in the U.S.S.R., and evaluating its results, Lenin stated that "... unless the mistake of the previous economic policy is clearly understood we cannot successfully accomplish our task of laying the foundations and of finally determining the direction of our New Economic Policy". He then took for the purpose of analogy an episode from the Russo-Japanese War, namely, the capture of Port Arthur by the Japanese. Briefly, the Japanese firstly tried "furious assault tactics" but failed. Then, they attempted "extremely arduous, extremely difficult and slow siege tactics", and eventually succeeded. Applying this strategy to the subject matter of his discussion, he tried to explain "the necessity of passing from assault to seige tactics, the inevitability of assault tactics at first, and the need to realise the importance of new fighting methods after the assault tactics have failed". He then concluded : "Don't be afraid to admit defeat. Learn from defeat. Do over again more thoroughly, more carefully, and more systematically what you have done badly."[3]

(2) This argument was kindly brought to my attention, for the first time, by Professor Alec Nove. See his **Economic History of the U.S.S.R.,** (A Forthcoming Pelican Book, 1968), Chapter IV.

(3) See his "I. Report on the New Economic Policy, October 29", given in the **Seventh Moscow Gubernia Conference of the Russian Communist Party, October 29-31, 1921,** and published in D. Skvirsky and G. Hanna, (eds.), **V.I. Lenin Collected Works, Volume 33, August 1921 — March 1923,** the English Translation, (Moscow : Progress Publishers ; and London : Lawrence and Wishart, 1966), pp. 84-86, 93 and 100.



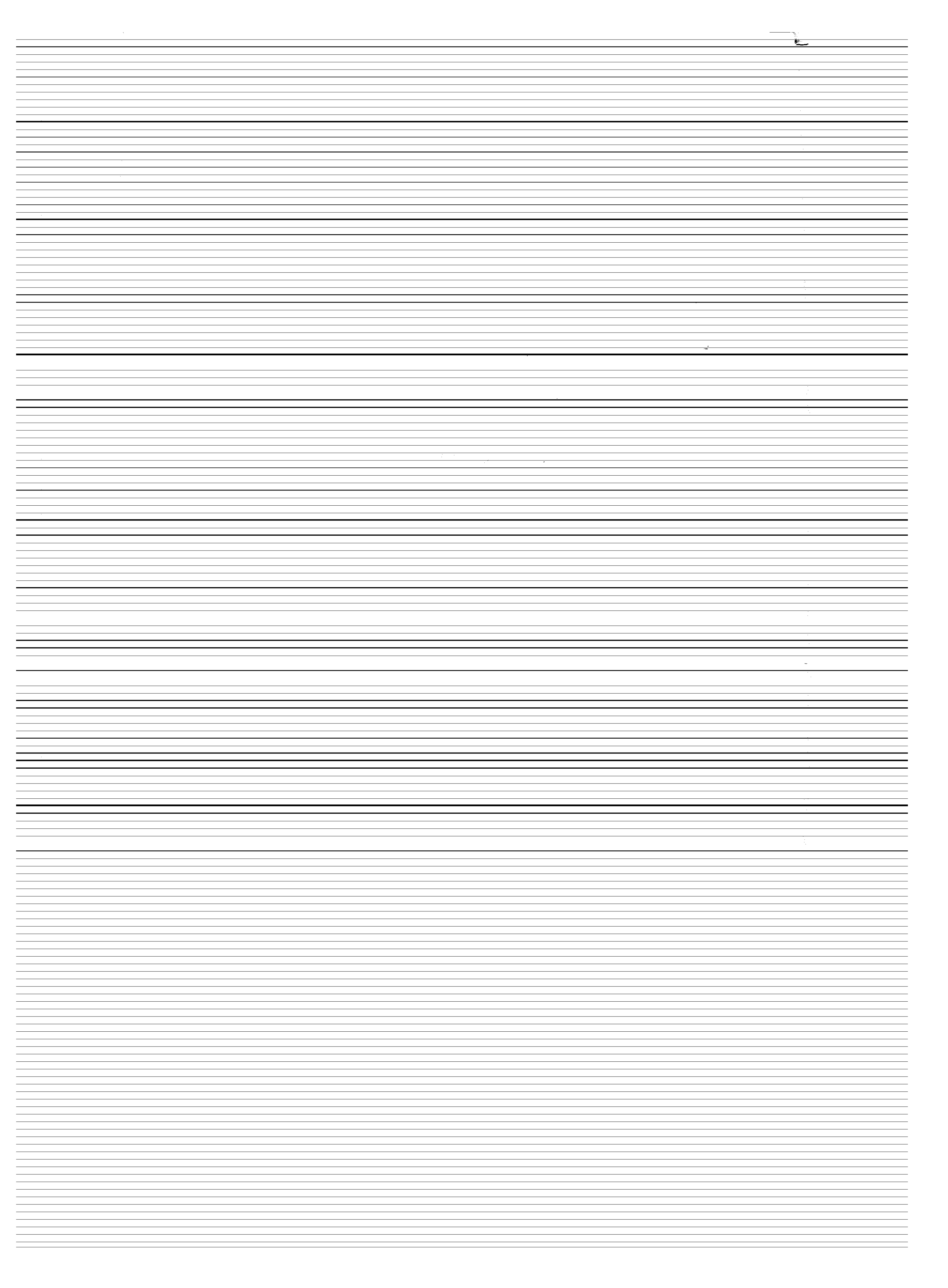


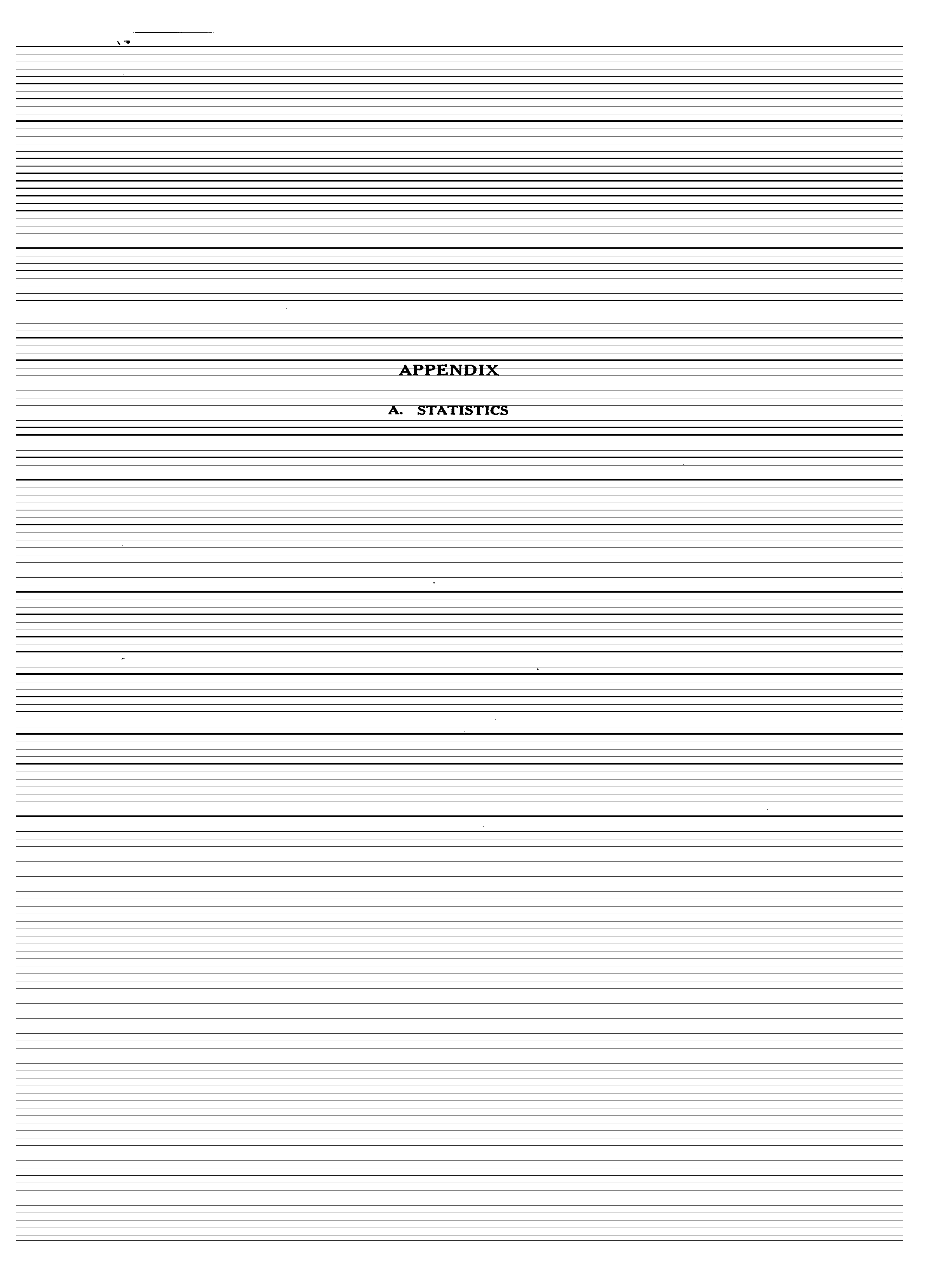
APPENDICES

A. STATISTICS.

B. DIAGRAMS.

C. CHARTS.





APPENDIX

A. STATISTICS



APPENDIX A

TABLE I-A-1: INTERNATIONAL DIFFERENCES IN PER CAPITA INCOME AND RELATED MEASURES, 1939

Group of Countries	Per Capita Income (U.S. Dollars)	% of Total Population	% of Total Income	Indexes: Per Capita Income	Av. Income of Population dependent on Agriculture	Investment in Industry per Worker	Expectation of Life at Birth	Physicians per 1,000 Population	% Literate	Energy consumed per Day (Horse-power Hours per Capita)	Miles of Railroads (Per 1,000 Square Miles of Area)	Annual Freight carried (Ton Miles per Capita)	Daily per Capita Food Supply: All Food (Calories)	Daily per Capita Food Supply: Animal Protein (Oz.)	Net Annual Consumption of Textiles (Lbs. Per Capita)
I. High-income Group (Per Capita Income over $ 200)	461	20	64	100	100	100	100	100	100	100	100	100	100	100	100
II. Middle-Income Group (Per Capita Income from $101 to $200)	154	16	18	33	39	39	82	73	77	24	72	60	92	56	40
III. Low-Income Group (Per Capita Income from $22 to $100)	41	64	18	9	8	11	63	16	20	5	32	4	72	18	26

Notes:

i - The above data are for 53 countries which together account for 85% of the World's population in 1939. These countries, arranged in declining order according to their per capita incomes in 1939, are: group I: United States, Germany, United Kingdom, Switzerland, Sweden, Australia, New Zealand, Canada, Netherlands, Denmark, France, Norway, Belgium, Eire, and Argentina; group II: Union of South Africa, Finland, Chile, Austria, U.S.S.R., Italy, Greece, Czechoslovakia, Hungary, and Bulgaria; and group III: Cuba, Yugoslavia, Poland, Japan, Venezuela, Egypt, Palestine, Costa Rica, Colombia, Peru, Panama, Ceylon, Mexico, Uruguay, Dominican Republic, Haiti, Nicaragua, Guatemala, Bolivia, Honduras, El Salvador, Brazil, Ecuador, Paraguay, India, Philippines, China, and Indonesia.

ii - All averages used are weighted arithmetic means.

iii - Adapted and compiled from the Source.

Source: S. Kuznets, "International Differences in Income Levels : Some Reflections on Their Causes", *Economic Development and Cultural Change*, Vol. II, (April, 1953), pp. 5 - 6.

TABLE 1-A-3 : NONMONETARY INDEX OF RELATIVE NATIONAL CONSUMPTION LEVELS, COMPARED WITH MONETARY SERIES, FOR 31 COUNTRIES

Indicator \ Country	U.S.A.	Canada	Australia	U.K.	Germany	France	Argentina	Czechoslovakia	Cuba	Japan	Italy	Union of South Africa	Spain	U.S.S.R.	Brazil	Mexico
I - BENNETT's INDEX																
1 - Absolute	1,707	1,375	1,365	1,290	1,058	984	916	803	708	683	676	660	628	573	540	495
2 - Relative	100	84	80	76	62	58	54	47	42	40	40	39	37	34	32	29
II - CLARK's SERIES																
1 - Absolute	1.00	0.75	0.66	0.58	0.49	0.38	0.39	0.28	0.10	0.19	0.20	0.19	0.27	0.17	0.10	0.10
2 - Relative	100	75	66	58	49	38	39	28	10	19	20	19	27	17	10	10

Indicator \ Country	Poland	Yugoslavia	Philippines	Rumania	Turkey	Egypt	Thailand	India	Korea	Persia	China	Nigeria	French Indo-China	Netherlands Indies	French West Africa
I - BENNETT's INDEX															
1 - Absolute	492	448	439	434	417	378	369	359	331	310	307	306	302	291	264
2 - Relative	29	27	26	25	24	22	21	21	19	18	18	18	18	17	16
II - CLARK's SERIES															
1 - Absolute	0.19	0.16	0.05	0.16	0.10	0.10	0.05	0.09	0.05	0.10	0.03	0.05	0.05	0.05	0.05
2 - Relative	19	16	5	16	10	10	5	9	5	10	3	5	5	5	5

Notes:

i - The above 31 countries together made up over 85% of the estimated world total population in 1935.

ii - Primary data for Bennett's index are typically for 1934 - 38.

iii - Colin Clark's data are real income per hour worked expressed in "international units" which are dollars of the purchasing power of 1925 - 34.

iv - In constructing the above index, Professor Bennett broke down consumption into food, medical and sanitary services, housing and clothing, education, and transportation and communication. For each component he used at least two non-monetary indicators. Thus, the total indicators were 16. In addition, he used three balancing items to reduce bias in favour of either industrialized or agricultural economies or because of different climatic conditions of the countries concerned. Having determined the 19 indicators, he credited the country rating highest in the case of any given indicator with a score of 100. A maximum score of 1900 was thus possible. Then each country rating other than highest for any given indicator was credited with a score computed as some percentage of 100. A total absolute score was thus obtained for each country, and from the array of absolute scores an array of relative scores was then derived. As a high scorer on points, the U.S.A. rated a relative score of 100 - though it failed to score the maximum.

v - Adapted from the Source.

Source: M.K. Bennett, "International Disparities in Consumption Levels," *The American Economic Review*, Vol. XLI, (Sept., 1951), pp. 632 - 49.

TABLE III-A-3 : PRODUCTION IN SELECTED INDUSTRIES IN INDIA

Industry	Unit	Production 1949	Production 1950	Industry	Unit	Production 1949	Production 1950
1 — Coal	Mn. tons	31.5	32.0	30 — Wheat Flour	000' tons	417.6	477.5
2 — Steel ingots and Metal for castings	Mn. tons	1.35	1.44	31 — Sugar (cane only)	000' tons	1,001	977
3 — Aluminium	000' tons	3.5	3.6	32 — Coffee	000' tons	22.4	20.5
4 — Antimony	000' tons	01	0 4	33 — Salt	Mn. tons	2.0	2.6
5 — Copper	000' tons	6.4	6.6	34 — Cigarettes	100 Mns.	219	236
6 — Lead	000' tons	0.59	0.63	35 — Cotton Yarn	Mn. Lbs.	1,359	1,174
7 — Gold	000' ounces	164	197.	36 — Cotton Cloth	Mn. Yrds.	3,904	3,665
8 — Razor Blades	Mns.	7.6	10.7	37 — Jute Textiles	000' tons	946	836
9 — Hurricane Lanterns	Mns.	1.7	2.8	38 — Woollen Textiles	000' Lbs.	21,000	18,053
10 — Diesel Engines	000, Nos.	2.1	4.6	39 — Footwear (Leather)	Mn. Pairs	4.96	4.83
11 — Machine Tools (Value)	Mns. Rs.	4.7	2.7	40 — Chrome Tanned hides	Mns.	0.6	0.5
12 — Dry cells	Mns.	152	138	41 — Paper	000' tons	102.3	90.0
13 — Starage Batteries	000' Nos.	107	187	42 — Paper Board	000' tons	18.937	18.943
14 — Electric Motors	000' H.P.	68	82	43 — Automobile Tyres	000' Nos.	687	638
15 — Power Transformers	000' KVA	109	172	44 — Cycle Tyres	000' Nos.	4,612	3,326
16 — Electric Lamps	Mns.	13.6	14.3	45 — Sulphuric Acid	000' tons	99.5	102.5
17 — Electric Fans	Mns.	0.18	0.19	46 — Caustic Soda	000' tons	6.3	10.8
18 — Radio Receivers	000' Nos.	16.8	44.3	47 — Soda Ash	000' tons	17.9	43.8
19 — Bare Copper Conductors	000' tons	5.73	5.68	48 — Cholorine Liquid	000'tons	2.7	4.0
20 — Winding Wires	tons	340	249	49 — Bleaching Powder	000' tons	2.5	3.3
21 — Rubber Insulated Cables	Mn. Yrds.	19.4	34.0	50 — Bichromates	000' tons	1.7	2.0
22 — Cars	000' Nos.	6.7	6.6	51 — Superphosphates	000' tons	46.7	52.4
23 — Trucks,	000' Nos.	15.1	8.0	52 — Ammonium Sulphate	000' tons	45.9	47.3
24 — Bicycles	000' Nos.	80.0	103.2	53 — Paints and Varnishes	000' tons	30.9	27.9
25 — Cement	Mn. tons	2.1	2.6	54 — Matches	000' Cases of 50 Gross Boxes	526.5	532.2
26 — Refractories	Mn. tons	0.21	0.24				
27 — Asbestos	000' tons	87	88	55 — Power Alcohol	000' bulk Gals.	4,230	4,497
28 — Tea chests	Mn. sq. ft.	38.4	41.4	56 — Industrial Alcohol	000' bulk Gals.	3,046	4,913
29 — Commercial Plywood	Mn. sq. ft.	9.2	8.9				

Source : R. Owen, **India : Sept., 1952,** Overseas Econ. Surveys, Board of Trade, (H. M.S.O., London, 1953), pp. 120-121.

TABLE III-A-4 : PRODUCTION IN SELECTED INDUSTRIES IN EGYPT

Industry	Production (Thousands of Metric tons, except as stated)				
	1946	1947	1948	1949	1950
1. Crude Petroleum	1,416	1,481	2,092	2,513	2,592
2. Phosphate	371	377	300	350	397
3. Manganese	...	...	...	139	152
4. Salt	...	...	...	364	567
5. Raw Sugar	180	191	223	191	195
6. Refined Sugar	167	185	200	216	232
7. Molasses (inedible)	87	88	92	77	90
8. Starches	8	7	3	4	4
9. Glucose	2	2	2	3	4
10. Cotton seed oil	80	82	78	95	85
11. Cotton seed cakes	401	411	399	471	477
12. Rice, milled and bleached	645	...	...	803	842
13. Onions, dehydrated	1.0	...	...	0.6	1.3
14. Oil Products	1,026	...	...	...	2,107
15. Beer, (Mn. Litres)	291	180	150	110	131
16. Wine (Mn. Litres)	10	10	10	10	10
17. Cotton Yarn	41	43	50	54	49
18. Cotton fabrics	37	39	46	45	40
19. Rayon Yarn	—	—	—	0.9	1.9
20. Rayon Staple	—	—	—	...	1.4
21. Woollen Yarn	...	...	4.6	2.5	2.5
22. Woollen fabrics	...	...	0.8	1.4	1.1
23. Paper and paper board	...	...	...	21	18
24. Alcohol (Mn. Litres)	9	10	9	9	15
25. Fertilizers (nitrate)	17	20	41	58	75
26. Superphosphates	15	...	...	...	69
27. Sulphric Acid	11	...	...	29	38
28. Caustic Soda	5.0	...	...	4.5	3.5
29. Soap	...	...	...	60	69
30. Matches (000' Mn. Sticks)	7.1	7.0	9.4	13.1	16.3
31. Cement	588	648	769	889	1,023
32. Glass	...	...	...	2.3	5.9
33. Kerosene	67	72	94	129	151
34. Benzine	188	198	198	215	200
35. Mazout	609	695	1,266	1,523	1,632
36. Diesel and Solar oils	77	77	80	104	128
37. Iron Bars	—	—	—	5	25
38. Steel Sheets	—	—	—	—	—

Notes : i — (—) = nil or negligible.
ii — (. . .) = data are not available or are not separately reported.

Sources : El-Sayed H. Abd-El-Rahman, "A Survey of the Foreign Trade of Egypt..", **Op. cit.**, p. 271 ; B. Hansen and G. Marzouk, **Development and Economic Policy in the U.A.R. (Egypt), Op. cit.**, p. 114 ; and U.N., **The Development of Manufacturing Industry in Egypt, Israel and Turkey, Op. cit.**, p. 95.

TABLE IV-A-5 : ALLOCATION OF TOTAL OUTLAY OF THE FIVE-YEAR PROGRAMME IN EGYPT BY SECTOR

1946/47 — 1950/51

(In L.E. Mns.)

Sector	Total Outlay					
	Original		Revised		Actual	
	Total	%	Total	%	Total	%
1. Agriculture and Irrigation	4.5	8.9	12.9	24.6	8.2	30
2. Electricity	6.0	11.9	2.9	5.5	1.0	4
3. Industry and Commerce	3.0	5.9	3.1	5.9	1.4	5
4. Construction and Residential Buildings	21.0	41.6	15.9	30.3	7.6	28
5. Transport and Communications	11.0	21.8	14.6	27.8	8.2	30
6. Other Services	5.0	9.9	3.1	5.9	0.8	3
TOTAL	50.5	100.0	52.5	100.0	27.2	100

Notes : i — All figures are in current prices.
ii — Adapted from the Source.

Source : M.M. Hogier, **The Five-Year Programmes of Development in the Past Regime, from 1944/45-1950/51,** National Planning Commission, Memo. No. 69, **Op. cit.**, pp. 7 and 25.

TABLE IV-A-6 : FINANCIAL RESOURCES FOR THE FIVE-YEAR PROGRAMME IN EGYPT

1946/47 - 1950/51

(In L.E. Mns.)

Source	Financial Resources	
	Total	%
1. General Reserve Fund	36.6	72.5
2. Governmental Profits from Cotton Transactions	5.5	10.9
3. Domestic Borrowings	7.0	13.9
4. Other Governmental Sources	1.0	2.0
Deficit	0.4	0.7
TOTAL	50.5	100.0

Notes : i — Item 4 is governmental profits from transactions in War materials.
ii — The deficit is the part of the original outlay that was left uncovered.

Source : M.M. Hogier, **The Five-Year Programmes of Development in the Past Regime, from 1944/45 - 1950/51,** National Planning Commission, **Memo. No. 69, Op. cit.,** p. 16.

TABLE IV-A-7 : ALLOCATION OF TOTAL OUTLAYS IN THE THREE INDIAN PLANS BY SECTOR.

(In Rs. 100 Mns.)

Sector	Bombay 15-Year Plan		People 10-Year Plan		Gandhian 10-Year Plan*	
	Total	%	Total	%	Total	%
1. Agriculture	124	12.4	295	20	117.5	34
2. Industry and Mining	448	44.8	560	37	135.0	39
3. Transport and Communications	94	9.4	150	10	40.0	11
4. Social Services and Housing	314	31.4	495	33	55.5	16
5. Miscallaneous	20	2.0	—	—	2.0	—
TOTAL	1,000	100.0	1,500	100	350.0	100

Notes : i — (—) = nil or negligible.
ii — Year of publication was 1944 for the three Plans.

Sources : J.R.D. Tata, G.D. Birla, P. Thakurdas and Others, **A Brief Memo. Outlining A Plan of Economic Development for India, Parts I and II,** (Bombay, 1944) ; Indian Federation of Labour, **The People's Plan for Economic Development of India,** (Delhi, 1944) ; and S.N. Agarwal, **The Gandhian Plan of Economic Development for India,** (Bombay, 1944).

TABLE IV-A-8 : FINANCING THE THREE INDIAN PLANS

(In Rs. 100 Mns).

Source	Bombay Plan		People's Plan		Gandhian Plan	
	Total	%	Total	%	Total	%
1. Governmental Savings	400	40	90	6	50	14
2. Sterling Assets	100	10	45	3	—	—
3. Sale of Valuables Abroad (Hoarded Wealth)	30	3	—	—	—	—
4. Domestic Borrowings	—	—	—	—	200	57
5. External Resources	130	13	—	—	—	—
6. Deficit Financing	340	34	—	—	100	29
Gap	—	—	1,365*	91	—	—
TOTAL	1,000	100	1,500	100	350	100

Notes : i — (—) = nil or negligible
ii — Item 5 includes foreign assistance and trade surplus.
iii — (*) = to be covered from re-investment from agriculture and industry.

Sources : See Sources of Table IV-A-7, above.

TABLE V-A-9 : EXPANSION PROGRAMME IN CERTAIN MAJOR LINES IN THE PRIVATE SECTOR BY INDUSTRY

(THE INDIAN FIRST PLAN, 1951 - 56)

Industry	Unit	1950 - 51 (Actual) Rated Capacity	1950 - 51 (Actual) Production	1955 - 56 (Anticipated) Rated Capacity	1955 - 56 (Anticipated) Production	Investment during 1951-56 (Rs. crores)
1 - Agricultural Machinery - Power driven pumps	000' Nos.	33.5	34.3	69.4	82.5	1.20
2 - Agricultural Machinery - Diesel engines	000' Nos.	6.3	5.5	39.7	50.0	
3 - Aluminium	000' tons	4.0	3.7	20.0	12.0	9.00
4 - Automobiles (manufacturing only)	000' Nos.	30.0	4.1	30.0	30.0	3.00
5 - Bicycles	000' Nos.	120	101	530	530	---
6 - Cement	Mn. tons	3.2	2.7	5.0	4.5	15.40
7 - Cotton textiles	Mn. yards	7744	4528	7779	6400	9.00*
8 - Electric Motors	000' H.P.	150	99	300	320	---
9 - Electric Transformers	000' KVA	370	179	485	450	---
10 - Fertilizers - ammonium sulphate	000' tons	78.7	46.3	131.3	120.0	2.10
11 - Fertilizers - superphosphate	000' tons	123.5	55.1	192.9	164.0	
12 - Sheet glass	000' tons	11.7	5.9	52.2	26.0	2.20
13 - Glass & Glassware - blownware & pressedware	000' tons	201.6	86.0	237.8	140.0	
14 - Heavy chemicals - sulphuric acid	000' tons	150	99	213	192	7.30
15 - Heavy chemicals - Soda ash	000' tons	54	45	86	78	
16 - Heavy chemicals - Caustic soda	000' tons	19	11	37	33	
17 - Pig iron	Mn. tons	1.85	1.57	2.70	1.95	43.00
18 - Finished Steel	Mn. tons	0.98	0.98	1.55	1.28	
19 - Paper & paper board	000' tons	137	114	198	188	5.35*
20 - Petroleum Refining - in terms of input of Crude Oil	000' tons	250	*	2000	*	64.00*
21 - Power alcohol	Mn. Gals.	13	5	1	18	1.20
22 - Commercial spirit	Mn. Gals.	3	---	3	2	
23 - Railway Rolling Stocks - locomotives	Nos.	---	---	50	50	2.50
24 - Railway Rolling Stocks - underframes	Nos.	---	---	400	400	
25 - Rayon filament	Mn. pounds	4	1	18	18	15.10*
26 - Rayon - stable fibre	000' bales	-	-	28	28	
27 - Soap	000' tons	265	106	280	200	0.60
28 - Sugar	000' tons	1540	1116	1550	1500	0.10
29 - Textile machinery - carding engines	Nos.	600	-	600	600	1.50*
30 - Textile machinery - looms (plain, semi & auto.)	000' Nos.	3.6	1.9	8.0	6.0	
31 - Other Industries						50.75
				Total		271.30

TABLE V-A-10 : MAIN TARGETS OF PRODUCTION AND DEVELOPMENT BY INDUSTRIAL ORIGIN

(THE INDIAN FIRST PLAN, 1951-56)

Sector and Item	Unit	Production in 1950-51	Target in 1955-56	% Increase in 1955/56 over 1950/51
I — AGRICULTURE AND COMMUNITY DEVELOPMENT				
1. Foodgrains	Mn. tons	54.0	61.6	14
2. Cotton	Mn. bales	2.9	4.2	45
3. Jute	Mn. bales	3.3	5.4	64
4. Sugar cane (raw)	Mn. tons	5.6	6.3	12
5. Oilseeds	Mn. tons	5.1	5.5	8
6. Tea	Mn. pounds	613	...	...
7. National Extension Blocks	Nos	—	...	...
8. Community Develop. Bloocks	Nos.	—	...	...
II — IRRIGATION AND POWER				
9. Area irrigated	Mn. acres	51.0	70.7	39
10. Electricity (installed capacity)	Mn. KW	2.3	3.6	56
III — MINERALS				
11. Iron ore	Mn. tons	3.0	4.1	57
12. Coal	Mn. tons	32.3	39.0	21
IV — INDUSTRY				
13. Finished Steel	Mn. tons	1.1	1.7	54
14. Aluminium	000' tons	3.7	12.0	224
15. Railway locomotives	Nos.	3	173	5,667
16. Cement	Mn. tons	2.7	4.8	78
17. Fertilizers (ammonium sulphate)	000' tons	46	450	878
18. Fertilizers (superphosphate)	000' tons	55	180	227
19. Cotton textiles	Mn. yards	4,618	6,400	39
20. Paper and paper board	000' tons	114	200	75
21. Bicycles	000' Nos.	101	530	425
V — TRANSPORT AND COMMUNICATIONS				
22. Railways : passengertrain miles	Mns.	95	...	...
23. Railways : freight	Mn. tons	91	...	...
24. National highways	000' miles	12.3	12.9	5
25. Coastal Shipping	Mn. GRT	0.22	0.32	45
VI — EDUCATION AND HEALTH				
26. Primary and Junior basic schools	000' Nos.	223	...	...
27. Teachers (in primary and second.-middle-schs.)	Mns.	0.74	...	...
28. % of school-going children in the age group 6-11	%	42.0	60.0	43
29. Hospital beds	000' Nos.	113	125	11
30. Doctors	000' Nos.	59	...	...

Notes : i — (—) = nil or negligible.
ii — (...) = Not specified.
iii — Compiled and adapted from the Sources.

Sources : Gov. of India, Planning Commission. **The First Five Year Plan, Op. Cit.,** pp. 75-77. **Review of the First Five Year Plan, Op. cit.,** pp. 14-17, and **The Second Five Year Plan, Op. Cit.,** pp. 58-61 ; and Gov. of India, Ministry of Finance, Dept. of Economic Affairs, **India : Pocket Book of Economic Information : 1962, Op. Cit.,** pp. 210-13.

TABLE V-A-11 : DETAILS OF SOME PROJECTS IN THE INDUSTRIAL PLAN IN EGYPT.

(1956/57 - 1960/61) (In £ E 100,000)

Project	Priority No.	Site or suggested Site	Capital Domestic	Capital Foreign	Reserve Capital	Period of Implementation by year	Stage of Plan Implementation	Planned Capital Expenditure 1st Year D.	F.	2nd Year D.	F.	3rd Year D.	F.	4th Year D.	F.	5th Year D.	F.	Expected Increase in N. Income 1st Year C.	P.	2nd Year C.	P.	3rd Year C.	P.	4th Year C.	P.	5th Year C.	P.
1 - Pottery & Chinaware	1	Shubra	3	3	0.6	*	1st	3	3	-	-	-	-	-	-	-	-	3	-	-	1.8	-	2	-	2	-	2
2 - Chemicals (Mark I)	2	Giza	-	1.2	0.2	*	1st	-	1.2	-	-	-	-	-	-	-	-	-	1.7	-	2.2	-	2.2	-	2.2	-	2.2
3 - Chemicals (Mark II)	4	Aswan	70	100	17	4	1st	10	20	20	40	30	40	10	-	-	-	10	-	20	-	30	-	10	-	-	5
4 - Iron & Steel	10	Helwan	47	70.4	11.7	2	1st	28.2	28.2	18.8	42.3	-	-	-	-	-	-	28.2	-	18.8	-	-	11.2	-	14.1	-	14.1
5 - Electric Meters	41	Massara	0.5	2.2	0.4	4	1st	0.1	0.4	0.2	0.9	0.2	0.9	0.1	-	-	-	0.1	-	0.2	-	0.2	-	0.1	-	-	1.7
6 - Electric Washing Machines	62	Cairo	0.1	0.1	0.04	1	2nd	x		0.1	0.1	-	-	-	-	-	-	x		0.1	-	-	0.3	-	0.4	-	0.4
7 - Spinning Machines	65	Belbeis	10	10	2	6	2nd	x		1.5	2	3	4	2	2	2	2	x		1.5	-	3	-	2	-	2	-
8 - Lime Amonia Nitrate	79	Helwan	16	24	4	3	3rd	x		x		4.8	7.2	8	12	3.2	4.8	x		x		4.8	-	8	-	3.2	-
9 - Iron Sheet Barrels	100	Cairo	0.8	1.8	0.4	2	3rd	x		x		0.5	0.7	0.3	1.1	-	-	x		x		0.4	-	0.3	-	-	0.8
10 - Organic Chemicals	126										to be executed during the 4th and 5th stages, still, with others, under study																

Notes:
i - D = domestic, F = foreign, C = construction & P = production.
ii - (*) = less than one year.
iii - (-) = nil or negligible.
iv - (x) = year was not included in the stage indicated.
v - Compiled and adapted from the Source.

Source: Republic of Egypt, Ministry of Industry, *Industry After the Revolution and the Five Year Plan, Op. Cit.*, pp. 111 - 121 and 196.

TABLE V-A-12 : MAIN TARGETS OF PRODUCTION AND DEVELOPMENT BY INDUSTRIAL ORIGIN

(THE INDIAN SECOND PLAN, 1956-61)

Sector and Item	Unit	Production in 1950-51	Production in 1955-56	Target in 1960-61	% increase in 1960/61 over 1955/56
I — AGRICULTURE AND COMMUNITY DEVELOPMENT					
1. Foodgrains	Mn. tons	54.0	65.0	75.0	15
2. Cotton	Mn. bales	2.9	4.2	5.5	31
3. Jute	Mn. bales	3.3	4.0	5.0	25
4. Sugar cane (raw)	Mn. tons	5.6	5.8	7.1	22
5. Oilseeds	Mn. tons	5.1	5.5	7.0	27
6. Tea	Mn. pounds	613	644	700	9
7. National Extension Blocks	Nos.	—	500	3,800	660
8. Community Develop. Blocks	Nos.	—	622	1,120	80
II — IRRIGATION AND POWER					
9. Area irrigated	Mn. acres	51	67	88	31
10. Electricity (installed capacity)	Mn. KW	2.3	3.4	6.9	103
III — MINERALS					
11. Iron ore	Mn. tons	3.0	4.3	12.5	191
12. Coal	Mn. tons	32.3	38.0	60.0	58
IV — LARGE-SCALE INDUSTRIES					
13. Finished Steel	Mn. tons	1.1	1.3	4.3	231
14. Aluminium	000' tons	3.7	7.5	25.0	233
15. Railway locomotive	Nos.	3	175	400	129
16. Cement	Mn. tons	2.7	4.3	13.0	202
17. Fertilizers (ammonium sulphate)	000' tons	46	380	1,450	282
18. Fertilizers (superphosphate)	000' tons	55	120	720	500
19. Cotton textiles	Mn. yards	4,618	6,850	8,500	24
20. Paper and paper board	000' tons	114	200	350	75
21. Bicycles	000' Nos.	101	550	1,000	82
V — TRANSPORT AND COMMUNICATIONS					
22. Railways : passenger train miles	Mns.	95	108	124	15
23. Railways : freight	Mn. tons	91	120	181	51
24. National highways	000' miles	12.3	12.9	13.8	7
25. Coastal shipping	Mn. GRT	0.22	0.32	0.43	34
26. Primary and Junior Schools	000' Nos.	233	293	350	19
27. Teachers (in primary and middle Secondary Schools)	Mns.	0.74	1.03	1.34	30
28. % of school-going children in the age group 6-11	%	42.0	51.0	63.0	23
29. Hospital beds	000' Nos.	113	125	155	24
30. Doctors	000, Nos.	59.0	70.0	82.5	18

Notes : i — (—) = nil or negligible.
ii — Compiled and adapted from the Sources.

Sources : Gov. of India, Planning Commission, **The Second Five Year Plan, Op. Cit.,** pp. 58-61, **Second Five Year Plan : Progress Report, 1958/59, Op. Cit.,** pp. 12-15 and 96-101, and **Review of the First Five Year Plan, Op. Cit.,** pp. 14-17.

TABLE VI-A-13: MAIN TARGETS OF CAPACITY FOR 1970/71 IN INDIA
BY INDUSTRIAL ORIGIN

Item	Unit	Capacity Target
I — Agriculture		
1. Foodgrains	Mn. tons	125
II — Mining		
2. Coal	Mn. tons	170 — 180
III — Industry		
3. Pig iron	Mn. tons	3 — 4
4. Steel ingots	Mn. tons	18 — 19
5. Aluminium	000 tons	230 — 250
6. Electric power	Mn. KW	21 — 23
7. Oil refining	Mn. tons	18 — 20
8. Nitrogenous fertilizers	Mn. tons	2.0 — 2.2
9. Cement	Mn. tons	24 — 26
10. Machine-building	Rs. Crores of Output	1,600
IV — Transport and Communications		
11. Railway Freight transport	Mn. tons	380 — 420
V — Other Targets		
12. Exports	Rs. Crores	1,300 — 1,400

Notes: Adapted from the Source.

Source: Gov. of India, Planning Commission, **Third Five Year Plan, Op. cit.,** p. 29.

TABLE VI-A-14 : TARGETS OF NATIONAL INVESTMENT, OUPUT, INCOME AND EMPLOYMENT BY INDUSTRIAL ORIGIN IN EGYPT, 1960 — 1970

(Employment in Thousands, Others in £ E Mns. At 1959/60 Prices)

INDUSTRIAL ORIGIN	Investment For 1960 - 1970		Output						Income						Employment					
			Total		Index		%		Total		Index		%		Total		Index		%	
	Total	%	59/60	69/70	59/60	69/70	59/60	69/70	59/60	69/70	59/60	69/70	59/60	69/70	59/60	69/70	59/60	69/70	59/60	69/70
1 - Agriculture, Irrigation & Drainage	804	24.4	574	910	100	159	22.7	18.4	400	627	100	157	31.2	24.5	3,245	4,460	100	137	54.3	49.9
2 - Industry & Electricity	1,134	34.5	1,094	2,500	100	228	43.3	50.6	273	802	100	294	21.3	31.3	632	1,045	100	165	10.6	11.7
3 - Construction	x	x	115	167	100	145	4.6	3.4	52	75	100	144	4.1	2.9	170	221	100	130	2.8	2.5
4 - Transport, Communications, Public Utilities & Administration	1,085	32.9	358	572	100	160	14.2	11.6	261	435	100	167	20.3	16.9	502	705	100	140	8.4	7.9
5 - Other Services	271	8.2	384	792	100	206	15.2	16.0	296	625	100	211	23.1	24.4	1,426	2,505	100	176	23.9	28.0
TOTAL	3,294*	100.0	2,525	4,941	100	196	100.0	100.0	1,282	2,564	100	200	100.0	100.0	5,975	8,936	100	150	100.0	100.0

Notes: i - (x) = investment in construction is included in the totals of the other four items, according to the construction requirements of each.
ii - (*) = excluding changes in Stocks.
iii - The base year (1959/60) data are actual.
iv - Other services include trade and finance, education, health, social and religious services, cultural and recreational services, and personal services.
v - Compiled and adapted from the Source.

Source: United Arab Republic, National Planning Commission, *General Frame of the Five Year Plan For Economic and Social Development : July 1960 - June 1965*, Op. Cit., pp. 8 - 18.

TABLE VI-A-15 : RELATIVE SHARES OF PUBLIC AND PRIVATE SECTORS IN ANNUAL PLANNED INVESTMENT IN EGYPT

1960/61 — 1964/65

(At 1959/60 Prices) (In L.E. Mns.)

Annual Plans (1)	Public Sector Investment (2)		Private Sector Investment (3)		National Investment (4 = 2 + 3)	
	Total	%	Total	%	Total	%
1st Year Plan, 1960-61	254.3	81.0	59.6	19.0	313.9	100.0
2nd Year Plan, 1961-62	313.2	83.2	63.3	16.8	376.5	100.0
3rd Year Plan, 1962-63	351.9	90.3	37.8	9.7	389.7	100.0
4th Year Plan, 1963-64	395.3	93.7	26.6	6.3	421.9	100.0
5th Year Plan, 1964-65	382.7	94.2	23.6	5.8	406.3	100.0
Total of the five Annual Plans	1,697.4	89.0	210.9	11.0	1,908.3	100.0
Total of the Five-Year Plan	1,510.3	89.0	186.7	11.0	1,697.0	100.0

Notes : i — All data represent investment gross of depreciation and include changes in Stocks and cost of land.

ii — The precentage shares of the two Sectors in the "total of the five Annual Plans" are obtained from the annual data, and used to get the absolute shares in the "total of the Five-Year Plan".

iii — The "total of the five Annual Plans" is not equal to that of the Five-Year Plan because the total of each year was determined according to the performance of the previous year or years and the remainder of the Five-Year investment target.

iv — Compiled and adapted from the Sources.

Sources : United Arab Republic, National Planning Commission, **General Frame of the Five Year Plan.., Op. Cit.,** p. 24; and United Arab Republic, Ministry of Planning, **The Detailed Plan for the First Year, 1960-61,** (Cairo, 1960), pp. 12 and 223, **The Detailed Plan for the Second Year, 1961-62,** (Cairo, 1961), pp. 3-7, **Preliminary Progress Report on the Implementation of the Third Year Plan, 1962-63,** (Cairo, 1963), pp. 6-9, **The Detailed Plan for the Fourth Year, 1963-64,** (Cairo, 1963), pp. c - f and 15-18, and **Preliminary Scheme for the Frame of the Fifth Year Plan, 1964 65.** (Cairo. 1964) p. 4 and pp. 13-19. All documents are in Arabic.

TABLE VI-A-16: ALLOCATION OF PLANNED INDUSTRIAL INVESTMENT BY INDUSTRIAL ORIGIN IN THE INDIAN THIRD PLAN, 1961 — 66.

(At 1960/61 Prices) (In Rs. Crores)

Industrial Origin	Investment	Foreign Exchange Component of Investment
I — METALLURGICAL INDUSTRIES		
1. Iron and Steel	640.0	305.0
2. Ferro Alloys	5.5	3.7
3. Aluminium	65.0	32.0
4. Non-Ferrous Metals	7.9	3.1
5. Tungsten Carbide	1.0	0.5
II — MECHANICAL ENGINEERING INDUSTRIES		
6. Ferrous Pipes and Tubes	9.5	7.0
7. Steel Wire	7.5	4.4
8. Steel Wire Ropes	1.8	0.6
9. Castings and Forgings	30.0	15.0
10. Structural Fabrications	45.0	22.0
11. Industrial Machinery	137.5	91.5
12. Machine Tools	40.0	27.0
13. Construction Equipment	3.0	2.0
14. Steam Boilers	7.0	4.0
15. Industrial and Scientific Instruments	9.0	6.5
16. Railway Rolling Stock	2.0	1.0
17. Ship Building	32.0	7.0
18. Automobile and Ancillary Industries	85.0	40.0
19. Agricultural Implements, Machinery and Ancillary Industries	24.3	16.3
20. Refrigerators and other Coolers	1.5	0.5
21. Coated Abrasives and Grinding Wheels	2.4	1.3
22. Clocks and Watches	4.0	2.5
23. Medical Appliances	3.7	2.5
III — ELECTRICAL ENGINEERING INDUSTRIES		
24. Heavy Electrical Equipment	104.0	60.0
25. Electric Transformers, Motors, Cables and Wires and other Elect. Goods	32.0	19.0

TABLE VI-A-16: ALLOCATION OF PLANNED INDUSTRIAL INVESTMENT BY INDUSTRIAL ORIGIN

IN THE INDIAN THIRD PLAN, 1961-66. (Cont.)

(At 1960/61 Prices) (In Rs. Crores)

Industrial Origin	Investment	Foreign Exchange Component of Investment
IV — CHEMICAL AND ALLIED INDUSTRIES		
26. Fertilizers (Nitrogenous and Phosphatic)	225.0	100.0
27. Heavy Chemicals (Organic and Inorganic)	65.0	27.0
28. Coke (Soft and Hard)	71.2	39.6
29. Synthetic Rubber	25.0	12.5
30. Dyestuffs and Intermediates	28.0	13.0
31. Pharmaceuticals, Drugs and Pesticides	39.3	18.0
32. Plastics	27.5	10.5
33. Paper and Paperboard	105.5	39.0
34. Cement	60.0	12.0
35. Refractories	22.0	10.0
36. Electric Procelain	3.0	2.2
37. Glass	11.0	3.5
38. Rubber Manufactures	11.5	5.0
39. Petroleum Refining	73.5	33.4
40. Industrial Alcohol and Industrial Gases	15.0	6.9
41. Other Industries (Raw Films, Paints and Varnishes, Soap and Deterg., and Starch and Glucose)	19.0	7.7
V — TIMBER INDUSTRIES (Matches, Plywood and Boards)	5.0	2.8
VI — TEXTILE INDUSTRIES (Cotton, Jute, Rayon and Synthetics, and Woollen)	109.5	57.0
VII — FOOD INDUSTRIES (Mainly Sugar — Rs. 100 Crores)	122.0	17.4
VIII — MISCELLANEOUS INDUSTRIES	116.0	18.0
TOTAL	2,454.6	1,109.9

Notes: i — The above data are only for organized industries.

ii — The total does not include minerals, and is based on the physical targets. According to these targets, total investment in "organized industries and minerals" is expected to reach about Rs. 2,993 Crores, and the resources available are only Rs. 2,570 Crores. See Sources.

iii — Compiled and adapted from the Sources.

Source: Gov. of India, Planning Commission, **Third Five Year Plan, Op. Cit.,** pp. 459-61 and 499-509, and **Programmes of Industrial Development, 1961-66,** (New Delhi, 1961), pp. xxi - xxxiii.

TABLE VI-A-17 : ALLOCATION OF PLANNED INDUSTRIAL INVESTMENT BY INDUSTRIAL ORIGIN IN THE EGYPTIAN FIRST PLAN, 1960-65.

(At 1959/60 Prices) (In L.E. Mns.)

Industrial Origin	Investment	Foreign Exchange Component of Investment
1. Mining and Research in Mining and Petroleum	53.0	32.0
2. Basic Metallic Industries	46.9	29.8
3. Metallic Products	1.7	1.0
4. Manufacturing Means of Transportation	39.9	21.4
5. Manufacturing and Repairing Non-electric Machines	11.3	6.3
6. Manufacturing and Repairing Electric Machines	4.5	2.7
7. Other Engineering Industries	3.0	1.6
8. Chemical and Drug Industries	66.7	45.4
9. Petroleum Products	66.2	46.7
10. Paper and Paperboard, Printing and Publishing	20.6	12.4
11. Wood and wood Industries	1.2	0.8
12. Non-Metallic Products	1.5	0.7
13. Spinning, Weaving and Clothes	48.6	32.7
14. Food, beverages and tobacco Industries	31.7	16.0
15. Rural Industries	1.9	0.6
16. Vocational Training and Standardization	5.5	3.2
17. Renewals and Replacements	30.0	30.0
18. Military Factories	5.0	3.0
TOTAL	439.2	286.3

Notes : i — Total investment includes minerals and rural industries, as shown in the table.
ii — Adapted from the Source.

Source : United Arab Republic, National Planning Commission, **General Frame of the Five Year Plan.., Op. cit.,** pp. 33-34.

TABLE VI-A-18 : PLANNED DEVELOPMENT OF INDUSTRIAL PRODUCTION IN THE EGYPTIAN FIRST PLAN, 1960-65

(At 1959/60 Prices) (In L.E. Mns.)

Industry	Gross Value of Production		Production Indices		Sub-sectoral Contribution to total Industrial Production (%)	
	1959/60	1964/65	1959/60	1964/65	1959/60	1964/65
1. Mining	22.0	74.4	100	338	2.0	4.1
2. Power	61.6	134.0	100	218	5.6	7.4
3. Metallic Industries and Machinery	60.6	235.8	100	393	5.5	13.0
4. Chemical Industries	37.2	116.5	100	313	3.4	6.4
Total Industries of a predominantly Productive Nature	181.4	560.7	100	310	16.5	30.9
5. Consumer goods Industries	675.3	925.4	100	137	61.7	51.0
6. Other Industries	238.1	327.8	100	138	21.8	18.1
Total Industries of a predominantly Consumptive Nature	913.4	1,253.2	100	137	83.5	69.1
GRAND TOTAL	1,094.8	1,813.9	100	166	100.0	100.0

Notes : Compiled and adapted from the source.

Source : United Arab Republic, National Planning Commission, **"General Frame of the Five Year Plan..", Op. Cit.**, pp. 9-11.

TABLE VI-A119 : PROJECTIONS IN PANT'S DIMENSIONAL HYPOTHESES CONCERNING THE INDIAN THIRD PLAN, 1961-66 :

(At 1957/58 Prices) (In Rs. Crores)

Industrial Origin	Planned Investment, 1961-66		National Income	
	Total	%	1960/61 (Actual)	1960/61 (Expected)
1. Mining and Oil	300	3		
2. Power	700	7	1,350	2,500
3. Basic and Organised Large-Scale Industries	2,000	20		
4. Transport and Communications	1,700	17	350	550
5. Small-Scale Industries	300	3	1,100	1,400
6. The Rest of the Economy	5,000	50	9,700	12,550
TOTAL	10,000	100	12,500	17,000

Notes : i — Item (5) in the national income column includes also Construction.
ii — Item (6) includes agriculture and Services.
iii — Compiled and adapted from the Source.

Source : A.H. Hanson, **The Process of Planning : A Study of India's Five-Year Plans. 1950-1964, op. cit.,** pp. 175-76.

TABLE VI-A-20: PROJECTIONS IN PANT'S DIMENSIONAL HYPOTHESES CONCERNING THE INDIAN THIRD PLAN, 1966-66:

FINANCING OF PUBLIC SECTOR INVESTMENT BY SECTOR

(At 1957/58 Prices) (In Rs. Crores)

Major Source	**Approximate Yield**
1. Balance from Current Revenue	700
2. Surpluses of Public Enterprises	1,200
3. Additional Taxation	2,000
4. Net Domestic Borrowing	1,800
5. Borrowing from Abroad (net of repayments)	1,000
TOTAL Net Investment in the Public Sector	6,700

Notes: i — Item (1) is the balance of total current revenue of Rs. 8,300 crores, plus Rs. 1,000 crores as taxes on agricultural production, minus total current expenditure of Rs. 8,600 crores.

ii — Item (3) includes additional indirect taxes and profits of state trading (Rs. 1,500 crores) and additional corporate, wealth and income taxes (Rs. 500 crores).

iii — Compiled and adapted from the Source.

Source: See **Source** of Table VI-A-19, above.

TABLE VI-A-21 : MAIN TARGETS OF PRODUCTION AND DEVELOPMENT BY INDUSTRIAL ORIGIN

THE INDIAN THIRD PLAN 1961-66

SECTOR and ITEM	UNIT	Production in 1960-61	Target in 1965-66	% increase in 1965/66 over 1960-61
I — AGRICULTURE AND COMMUNITY DEVELOPMENT				
1. Foodgrains	Mn. tons	76.0	100.0	32
2. Cotton	Mn. bales	3.1	7.0	37
3. Jute	Mn. bales	4.0	6.2	55
4. Sugar cane (raw)	Mn. tons	8.0	10.0	25
5. Oilseeds	Mn. tons	7.1	9.8	38
6. Tea	Mn. Lbs.	725.0	900.0	24
7. Community Development Blocks	Nos.	3,110	5,223	68
8. Co-operative Agricultural Credit Societies	000' Nos.	210	230	10
II — IRRIGATION AND POWER				
9. Area irrigated	Mn. acres	70.0	90.0	29
10. Electricity (installed capacity)	Mn. KW	5.7	12.7	123
III — MINERALS				
11. Iron ore	Mn. tons	10.7	30.0	180
12. Coal	Mn. tons	54.6	97.0	76
IV — LARGE-SCALE INDUSTRIES				
13. Steel ingots	Mn. tons	3.5	9.2	163
14. Finished steel	Mn. tons	2.2	6.8	209
15. Finished special steels, alloy and tool	000' tons	40.0	200.0	400
16. Aluminium	000' tons	18.5	80.0	332
17. Cement machinery	Value in Rs. Crs.	0.6	4.5	650
18. Sugar machinery	Value in Rs. Crs.	3.3	10.0	203
19. Industrial boilers	Value in Rs. Crs.	0.4	25.0	6,150
20. Machine tools	Value in Rs. Crs.	5.5	30.0	445
21. Agricultural Tractors	Nos.	2,000	10,000	400
22. Railway locomotives (*)	Nos.	1,291	1,470	14
23. Nirtrogenous fertilizers (in terms of N)	000' tons	110	800	627
24. Phosphatic fertilizers (in terms of (P_2O_5)	000' tons	55	400	627
25. Sulphuric acid	000' tons	363	1,500	313
26. Cement	Mn. tons	8.5	13.0	53
27. Paper and paperboard	000' tons	350	700	100
28. Petroleum products	Mn. tons	5.7	9.9	74
29. Bicycles	000' Nos.	1,050	2,000	90
30. Cotton textiles	Mn. yards	7,476	9,300	24

TABLE VI-A-21 : MAIN TARGETS OF PRODUCTION AND DEVELOPMENT BY INDUSTRIAL ORIGIN

THE INDIAN THIRD PLAN. 1961-66 (Cont.)

SECTOR and ITEM	UNIT	Production in 1960-61	Target in 1965-66	% increase in 1965/66 over 1960-61
V — TRANSPORT AND COMMUNICATIONS				
31. Railways (freight carried)	Mn. tons	154	245	59
32. Roads (surfaced including national highways)	000' miles	144	169	17
33. Shipping	Mn. GRT	0.90	1.09	21
VI — EDUCATION				
34. Primary and Junior Schools	000' Nos.	342	415	21
35. % of school-going children in the age group 6-11	%	61.1	76.4	45
36. Engineering and technology (degree level intake)	Nos.	13,858	19,137	38
VII — HEALTH				
37. Hospital beds	000' Nos.	186	240	29
38. Doctors	000' Nos.	70	81	16
39. Family planning centres	Nos.	1,649	8,200	387

Notes : i — (*) = Related to five-year periods.
ii — Compiled and adapted from the Sources.

Sources : Gov. of India, Planning Commission, **Third Five Year Plan, Op. Cit.,** pp. 55-56 and 77-84, and **The Third Plan Mid-term Appraisal,** (New Delhi, 1965), pp. 24-28.

TABLE VI-A-22, GROSS DOMESTIC PRODUCTION, PRODUCTION REQUIREMENTS AND VALUE ADDED BY INDUSTRIAL ORIGIN IN THE EGYPTIAN FIRST PLAN 1960-1965

(At 1959/60 Prices) (In L.E. Mns.)

Sector and Commodity	The Base Year, 1959/60 (Actual)			The End Year, 1964/65 (Planned)			% Change of value Added in 1964/65 over 1959/60
(1)	G.D. Product. (2)	Product. Require-ments (3)	Value Added (4 = 2 - 3)	G.D. Product. (5)	Product. Require-ments (6)	Value Added (7 = 5 - 6)	(8)
I — AGRICULTURE							
1. Foodgrains (Cereals and legumes)	141.8	54.2	87.6	190.3	65.5	124.8	42.3
2. Oilseeds	8.6	0.6	8.0	13.3	2.6	10.7	33.7
3. Sugar cane	9.9	2.9	7.0	13.1	3.6	9.5	35.7
4. Fibres (Cotton, flax, linen and jute)	135.5	20.8	114.7	168.4	23.8	144.6	26.1
5. Onions, Vegetables, Fruits and Wood trees	58.4	8.7	49.7	71.3	12.4	58.9	18.5
6. Fodder (Clover and Wheat Straw)	65.9	9.9	56.0	88.1	14.8	73.3	30.9
7. Other Crops	0.5	0.1	0.4	0.5	0.1	0.4	0.0
8. Animal and Poultry Products	134.1	75.5	58.6	165.1	99.7	65.4	11.6
9. Other Products (stalks, honey and fishery)	19.1	1.2	17.9	26.1	2.0	24.1	34.0
10. Construction in the Sector	15.6	3.8	11.8	42.9	22.1	20.8	76.3
II — ELECTRICITY, MINERALS AND INDUSTRY							
11. Electricity	18.3	6.4	11.9	35.1	11.5	23.6	98.3
12. Coal Mining	—	—	—	3.0	0.7	2.3	—
13. Crude Oil and Mineral Extractions	17.2	2.3	14.9	58.5	8.0	50.3	238.9
14. Extraction of other materials and Quarrying	4.8	1.2	3.6	12.9	3.9	9.0	150.0
15. Cotton Ginning and Pressing	149.7	145.8	3.9	191.3	186.5	4.8	23.1
16. Spinning and Weaving	160.3	113.1	47.2	252.0	170.1	81.9	73.5
17. Clothes and Shoes	28.9	18.6	10.3	34.4	22.2	12.2	18.4
18. Food, Beverages and Tobacco Industries	486.1	408.8	77.3	639.0	539.1	99.9	29.2
19. Wood and Wood Industries	17.1	9.5	7.6	24.2	13.6	10.6	39.5
20. Paper and Paper Products	2.9	1.8	1.1	18.2	11.6	6.6	500.0
21. Printing and Publishing	20.3	10.8	9.5	34.2	17.8	16.4	72.6
22. Leather and Leather Products	8.8	7.4	1.4	11.7	9.6	2.1	50.0
23. Rubber	6.0	3.8	2.2	8.8	5.5	3.3	50.0
24. Chemical Industries	31.2	18.3	12.9	107.7	61.4	46.3	250.9
25. Oil	43.3	22.1	21.2	98.9	50.4	48.5	128.8

TABLE VI-A-22, GROSS DOMESTIC PRODUCTION, PRODUCTION REQUIREMENTS AND VALUE ADDED BY INDUSTRIAL ORIGIN IN THE EGYPTIAN FIRST PLAN 1960-1965 (Cont.)

(At 1959/60 Prices) (In L.E. Mns.)

Sector and Commodity	The Base Year, 1959/60 (Actual)			The End Year, 1964/65 (Planned)			% Change of value Added in 1964/65 over 1959/60
	G. D. Product.	Product. Require-ments	Value Added	G. D. Product.	Product. Require-ments	Value Added	
(1)	(2)	(3)	(4 = 2 - 3)	(5)	(6)	(7 = 5 - 6)	(8)
26. Non-metallic Products	21.3	12.2	9.1	28.2	16.1	12.1	33.0
27. Basic Metallic Industries	18.8	11.5	7.3	124.4	75.8	48.6	565.8
28. Metallic Products	18.4	12.1	6.3	33.4	19.7	13.7	117.5
29. Manufacturing and Repairing Electric and Non-Electric Machines	8.3	2.9	5.4	36.6	21.5	15.1	179.6
30. Manufacturing Means of Transportation	14.5	6.3	8.2	41.4	22.0	19.4	136.6
31. Miscellaneous Industries	18.0	5.9	12.1	20.0	6.6	13.4	10.7
32. Construction in the Sector	24.9	15.3	9.6	12.3	5.1	7.2	—25.0
III — TRANSPORT AND COMMUNICATION							
33. Railways	23.5	7.9	15.6	27.0	9.3	17.7	13.5
34. Other Means of Transport (road, river, etc.) and Storage	55.7	23.1	32.6	71.4	29.6	41.8	28.2
35. Suez Canal	45.7	5.0	40.7	50.2	5.6	44.6	9.6
36. Communications (Post, telecommunic., etc.)	10.3	1.7	8.6	15.7	2.3	13.4	55.8
37. Construction in the Sector	16.0	9.2	6.8	17.2	10.6	6.6	—2.9
IV — SERVICES							
38. Trade and Finance	163.0	35.9	127.1	208.2	46.4	161.8	27.3
39. Education	60.6	9.0	51.6	78.7	11.9	66.8	29.5
40. Other Services (includ., health, housing, etc.)	383.0	102.2	280.8*	478.0	131.3	16.4	—31.1
41. Construction in the Sector	58.5	34.7	23.8	49.4	33.0	346.7	23.0
Grand Total	2,524.8	1,242.5	1,282.3	3,601.1	1,805.3	1.795,8	40.0

Notes : i — Production requirements incidue raw materials, fuel, electricity, spare parts, maintenance expenses, and the like.

ii — Other services (40) also include public utilities and administration, social, religious and cultural services, personal services and securtv, justice **and** defence services.

iii — Compiled and adapted from the Source.

Source : United Arab Republic, National Planning Commission, **General Frame of the Five Year Plan..., Op. Cit.,** pp. 51-59.

TABLE VI-A-23 : AVAILABLE COMMODITY RESOURCES AND THEIR USES BY INDUSTRIAL ORIGIN IN THE EGYPTIAN FIRST PLAN, 1960 - 65.

(At Factor Cost & Market Prices in 1959/60) (In £ E Mns.)

COMMODITY SECTOR	Available Commodity Resources						Commodity Resources' Uses											
	Local Production (2)		Imports (c.i.f.) (3)		(Total) (4 = 2 + 3)		Exports (5)		Final Consumption (6)		Production Requirements (7)		Investment (8)		Increase in Stocks (9)		Total (10 = 5 + 6 + 7 + 8 + 9 = 4)	
(1)	59/60	64/65	59/60	64/65	59/60	64/65	59/60	64/65	59/60	64/65	59/60	64/65	59/60	64/65	59/60	64/65	59/60	64/65
I - AGRICULTURE																		
1 - Foodgrains	139.7	188.6	20.7	19.2	160.4	207.8	0.1	0.3	6.1	7.5	154.2	185.9	-	-	-	14.1	160.4	207.8
2 - Fibres	134.5	167.4	0.5	1.5	135.0	168.9	0.2	0.2	-	-	134.8	168.7	-	-	-	-	135.0	168.9
3 - Animal & Poultry Products	134.1	165.1	4.2	3.6	138.3	168.7	0.4	0.4	18.3	21.7	119.6	146.6	-	-	-	-	138.3	168.7
4 - Other Crops & Products	161.8	211.1	19.6	23.6	181.4	234.7	5.1	8.3	78.0	95.0	96.7	129.5	-	-	1.6	1.9	181.4	234.7
II - ELECTRICITY, MINERALS & INDUSTRY																		
5 - Electricity	18.3	35.1	-	-	18.3	35.1	-	-	9.4	15.0	8.2	19.4	0.7	0.7	-	-	18.3	35.1
6 - Minerals & Quarries	21.4	73.4	9.8	-	31.2	73.4	5.6	11.3	0.1	0.1	23.9	56.9	1.3	2.7	0.3	2.4	31.2	73.4
7 - Ginning & Pressing	145.7	186.5	0.4	-	146.1	186.5	108.6	120.1	0.4	0.5	37.1	50.9	-	-	-	15.0	146.1	186.5
8 - Food, Beverages & Tobacco Products	411.1	530.3	24.7	22.0	435.8	552.3	6.4	16.6	338.3	414.0	88.1	120.0	-	-	3.0	1.7	435.8	552.3
9 - Spinning & Weaving	155.9	239.8	5.7	1.6	161.6	241.4	17.4	28.5	75.9	98.6	63.6	99.9	-	-	4.7	14.4	161.6	241.4
10 - Clothes & Shoes	27.9	33.2	0.6	4.0	28.5	37.2	3.1	1.2	25.4	36.0	-	-	-	-	-	-	28.5	37.2
11 - Wood & Wood Products	16.1	23.3	9.1	12.0	25.2	35.3	0.4	0.5	5.0	6.8	10.1	13.6	9.7	14.4	-	-	25.2	35.3
12 - Paper & Paper Products	2.7	18.2	8.5	3.5	11.2	21.7	0.2	0.4	1.4	1.9	9.1	19.4	-	-	0.5	-	11.2	21.7
13 - Printing & Publishing	19.7	33.1	1.0	1.0	20.7	34.1	1.4	1.7	15.0	24.2	4.3	8.2	-	-	-	-	20.7	34.1
14 - Leather & Leather Products	8.1	10.7	0.5	0.4	8.6	11.1	0.1	0.4	2.3	2.8	6.2	7.9	-	-	-	-	8.6	11.1
15 - Rubber Products	5.1	7.4	2.6	2.7	7.7	10.1	1.3	1.6	4.1	5.0	2.3	3.5	-	-	-	-	7.7	10.1
16 - Chemical Products	27.7	92.6	29.7	23.0	57.4	115.6	0.9	9.4	17.7	23.8	37.5	79.3	1.3	1.6	-	1.5	57.4	115.6
17 - Oil & Coal Products	40.2	89.8	11.7	2.6	51.9	92.4	2.7	5.7	19.6	27.5	27.6	55.3	2.8	3.9	-	-	51.9	92.4
18 - Non-metallic Products	18.1	23.7	2.5	1.6	20.6	25.3	1.7	2.3	1.2	2.0	2.3	2.8	15.4	18.2	-	-	20.6	25.3
19 - Metallic Products	18.2	33.4	4.1	1.0	22.3	34.4	0.2	1.0	10.8	11.7	6.9	10.2	4.4	7.5	-	4.0	22.3	34.4
20 - Basic Metallic Products	18.4	123.9	15.7	20.6	34.1	144.5	0.5	0.4	-	-	20.4	109.0	13.2	15.3	-	19.8	34.1	144.5
21 - Electric & Non-electric Machines	8.2	36.4	40.5	51.8	48.7	88.2	0.3	0.9	5.7	9.5	8.1	13.4	34.6	53.0	-	11.4	48.7	88.2
22 - Means of Transport	14.3	41.4	14.3	17.2	28.6	58.6	0.2	1.0	7.3	7.9	2.8	5.5	18.3	18.0	-	26.2	28.6	58.6
23 - Miscellaneous Industrial Products	17.5	20.0	2.8	2.0	20.3	22.0	1.5	2.5	12.5	13.1	4.3	4.4	2.0	2.0	-	-	20.3	22.0
III - OTHER ITEMS																		
. Studies, Designs & Management of Projects	3.0	1.5	-	-	3.0	1.5	-	-	-	-	-	-	3.0	1.5	-	-	3.0	1.5
.. Construction & Machine Installation	49.0	49.5	-	-	49.0	49.5	-	-	-	-	-	-	49.0	49.5	-	-	49.0	49.5
.. Trade Margin	167.9	220.9	28.1	24.0	196.0	244.9	10.5	14.6	112.8	134.4	48.4	62.8	24.0	30.0	0.3	3.0	196.0	244.9
Total At Factor Cost	1,784.6	2,656.3	257.3	238.9	2,041.9	2,895.2	168.8	229.3	767.3	959.0	916.5	1,373.2	178.9	218.3	10.4	115.4	2,041.9	2,895.2
Net Commodity Taxes	167.4	236.6	93.5 (*)	107.5	+	+	2.9	3.0	109.1	127.2	78.2	124.8	13.9	16.1	0.7	4.6	+	+
Total At Market Price	1,952.0	2,892.9	350.8	346.4	+	+	171.7	232.3	876.4	1,086.2	994.7	1,498.0	192.8	234.4	11.1	120.0	+	+

Notes : i — 1959/60 data are actual and 1964/65 data are planned.

ii — The above data represent the multi-count of production in its successive stages.

iii — (*) = less L.E. 8 Mns. taxes on exported cigarettes.

iv — (+) Since commodity taxes on exports appear in this table, the total balance can not be shown, as total resources from commodity taxes come from taxing production and imports as well as exports.

v — Compiled and adapted from the Source.

Source : United Arab Republic, National Planning Commission, **General Frame of the Five Year Plan . . ., Op. Cit.**, pp. 53-76.

TABLE VI-A-24 : FLOW OF INTERMEDIATE COMMODITIES AMONG COMMODITY PRODUCING SECTORS IN THE EGYPTIAN FIRST PLAN : IN THE BASE YEAR, 1959/60, (ACTUAL)

(At Current Users' Prices in 1959/60) (In L.E. Mns.)

DELIVERING SECTORS	RECEIVING SECTORS												
	Agriculture	**Mines and Quarries**	**Power and Fuel**	**Chemical Indust.**	**Basic Metal. Indust.**	**Metal. and Engin. Indust.**	**Food., Bev. and Tobacco Ind.**	**Ginning and Pressing**	**Spinning, Weav. and Cloth.**	**Non-metal. Products.**	**Other Industries.**	**Construction**	**Total Intermediate consumption**
1. Agriculture	123.0	—	—	. .	—	—	294.6	142.6	5.0	0.8	1.5	—	567.5
2. Mines and Quarries	—	0.1	20.0	3.0	4.0	—	—	—	—	1.2	—	3.0	31.3
3. Power and Fuel	9.6	0.3	4.1	4.0	1.7	1.2	8.0	1.0	5.0	2.5	2.5	5.0	44.9
4. Chemical Industries	30.6	1.2	3.6	13.0	2.0	3.8	6.0	. .	4.0	2.0	12.0	3.0	81.2
5. Basic Metallic Industries	—	. .	—	0.9	2.8	6.9	—	—	—	0.5	—	13.0	24.1
6. Metallic and Engineering Industries	1.0	1.0	0.8	1.0	1.0	8.5	1.0	0.2	2.0	0.2	1.2	7.0	24.9
7. Foodstuff, Beverages and Tobacco Industries	6.5	—	—	. .	—	—	88.2	—	. .	—	3.5	—	98.2
8. Ginning and Pressing	—	—	—	—	—	—	6.0	—	39.3	—	—	—	45.3
9. Spinning, Weaving and Clothes	2.0	—	—	1.0	—	—	4.0	2.0	71.4	—	—	1.0	81.4
10. Products of Non-metallic Materials	. .	0.4	—	. .	. .	—	. .	—	. .	4.0	—	17.0	21.4
11. Other Industries	1.2	0.5	—	1.0	—	0.9	1.0	—	5.0	1.0	12.9	14.0	37.5
12. Construction	—	—	—	—	—	—	—	—	—	—	—	—	—
Total Intermediate Consumption	173.9	3.5	28.5	23.9	11.5	21.3	408.8	145.8	131.7	12.2	33.6	63.0	1,057.7

Notes : i — (. .) = values less than L.E. 50,000.

ii — The current users' prices are market prices, inclusive of commodity taxes and trade and transportation margins.

iii — Adapted from the Source.

Source : United Arab Republic, National Planning Commission, **General Frame of the Five Year Plan. . . ., Op. Cit.**, pp. 66 and 90.

TABLE VI-A-25 : FLOW OF INTERMEDIATE COMMODITIES AMONG COMMODITY PRODUCING SECTORS IN THE EGYPTIAN FIRST PLAN IN THE END YEAR, 1964/65, (PLANNED)

(At Current Users' Prices in 1959/60) (In L.E. Mns.)

Delivering Sectors	Receiving Sectors												
	(1) Agriculture	(2) Mines and Quarries	(3) Power and Fuel	(4) Chemical Industries	(5) Basic Metallic Industries	(6) Metal and Engin. Industries	(7) Food, Bev. and Tobacco Industries	(8) Ginning and Pressing	(9) Spinning Wearing and Clothes	(10) Non-metallic Products	(11) Other Industries	(12) Construction	Total Intermediate Consumption
1. Agriculture	142.4	—	—	0.5	—	—	386.1	182.1	6.9	1.0	1.5	—	720.5
2. Mines and Quarries	1.0	0.3	43.5	5.0	12.5	—	—	—	—	1.6	..	3.3	67.2
3. Power and Fuel	14.9	1.2	10.3	14.0	6.4	4.3	9.5	1.4	8.0	3.8	2.7	5.0	81.5
4. Chemical Industries	50.8	5.4	6.3	48.4	9.8	5.6	7.4	0.1	10.4	3.2	16.4	2.7	166.5
5. Basic Metallic Industries	—	0.2	—	1.8	43.7	41.1	—	—	0.1	0.6	—	15.8	103.3
6. Metallic and Engineering Industries	1.6	4.0	1.6	1.7	3.2	10.5	1,2	0.3	2.5	0.2	1.2	5.9	33.9
7. Foodstuff, Beverages and Tobacco Industries	8.6	—	—	0.1	..	—	121.5	—	..	—	5.3	—	135.5
8. Ginning and Pressing	—	—	—	—	—	—	7.5	—	55.1	—	—	—	62.6
9. Spinning, Weaving and Clothes	2.8	0.1	—	4.2	—	—	4.6	2.6	103.1	—	—	1.2	118.6
10. Products of Non-metallic Materials	0.2	0.7	—	0.2	0.1	0.2	0.1	—	..	4.6	—	25.6	31.7
11. Other Industries	2.2	0.7	0.2	2.6	0.1	1.5	1.2	—	6.2	1.1	20.5	11.5	47.8
12. Construction	—	—	—	—	—	—	—	—	—	—	—	—	—
Total Intermediate Consumption	224.5	12.6	61.9	78.5	75.8	63.2	539.1	186.5	192.3	16.1	47.6	71.0	1,569.1

Notes and Source : See, notes and Source of Table VI-A-24, above.

TABLE VI-A-26 : PLANNED ANNUAL FINANCIAL RESOURCES IN EGYPT, 1960/61 — 1964/65.

(At 1959/60 Prices) (In L.E. Mns.)

SOURCE	The Five Annual Plans' Financial Resources										The 5 Plans		The Five-Year Plan,	
	1960-61 (2)		1961-62 (3)		1962-63 (4)		1963-64 (5)		1964-65 (6)		(7 = 2 + 3 + 4 + 5 + 6)		1960-65, (8)	
(1)	Total	%	Total	%	Total	%	Total	%	Total	%	Total	%	Total	%
I — PUBLIC SECTOR SAVINGS														
1. Balance from Current Revenue	27.6	9.0	—5.1	—1.4	22.9	6.1	55.0	13.3	31.9	8.0	132.3	7.1	120.5	7.1
2. Surplus of Public Enterprises	62.1	20.3	84.4	23.3	146.9	39.1	172.3	41.8	236.2	59.3	701.9	37.9	643.1	37.9
II — PUBLIC SECTOR BORROWINGS														
1. Borrowing from Household Sector	68.0	22.3	60.2	16.6	37.8	10.0	54.6	13.2	65.7	16.5	286.3	15.4	261.3	15.4
2. Borrowing from Private Business Sector	39.9	13.1	100.3	27.6	36.2	9.6	31.8	7.7	17.7	4.4	225.9	12.2	207.0	12.2
III — FOREIGN ASSISTANCE	58.5	19.2	55.9	15.4	98.8	26.3	74.9	18.2	25.0	6.3	313.1	16.9	286.8	16.9
IV — NET PRIVATE SECTOR RESOURCES														
1. Net Household Sector Savings	9.0	2.9	6.4	1.8	5.3	1.4	5.0	1.2	5.0	1.3	30.7	1.6	27.2	1.6
2. Net Private Business Sector Savings	40.3	13.2	60.8	16.7	28.1	7.5	18.7	4.5	16.5	4.2	164.4	8.9	151.0	8.9
TOTAL	305.4	100.0	362.9	100.0	376.0	100.0	412.3	100.0(*)	398.0	100.0	1,854.6	100.0	1,696.9	100.0

Notes : i — (*) = the percentages of the sources do not add up to 100 because of rounding.

ii — The shares of individual sources in Col. (8) are obtained by using the percentage shares of individual sources in Col. (7).

iii — The total of Col. (7) is not equal to that of Col. (8) because the total of each year was determined according to the performance of the previous year or years and the remaining of the five-year investment target.

iv — The individual years' totals and their grand total do not coincide with those on investment in Table VI-A-15, above, because the latter data include the cost of land, see notes to that table.

v — Compiled and adapted from the Sources.

Sources : United Arab Republic, Ministry of Planning **The Detailed Plan for the First Year, 1960-61, Op. Cit.**, pp. 204-219, **The Detailed Plan for the Second Year, 1961-62, Op. Cit.**, pp. H - L and 186-209, **The Detailed Plan for the Fourth Year, 1963-64, Op. Cit.**, pp. G - K and 266-285, and **Preliminary Scheme for the Frame of the Fifth Year Plan, 1964/65, Op. Cit.**, pp. 7-9 and 100-113 ; and A.A. Farag, **"The National Budget for the Third Year Plan, 1962-63,"** United Arab Republic, Ministry of Planning, Memo. No. 618, (Cairo, 1962, in Arabic), pp. 5-11.

TABLE VI-A 27 : INDIAN THIRD FIVE YEAR PLAN, 1961-66

(At 1960-61 Prices) (In Rs. Crores)

Source	Planned Financial Resources	
	Total	%
1. Balance from current Revenues	550	7.3
2. Contribution of Railways	100	1.3
3. Surpluses of Other Public Enterprises	450	6.0
Total Public Sector Savings	1,100	14.6
4. Net Loans from the Public	800	10.7
5. Net Small Savings	600	8.0
6. Net Provident Funds	265	3.5
7. Net Steel Equalisation Fund	105	1.4
8. Balance of Miscellaneous Capital Receipts over Non-Plan Disbursements	170	2.3
Total Domestic Borrowings	1,940	25.9
9. External Assistance	2,200	29.3
10. Other Sources (Additional Taxation including measures to increase the Surpluses of Public Enterprises)	1,710	22.8
11. Deficit Financing	550	7.3
TOTAL	7,500	100.0(*)

Notes : i — (*) = the individual percentages do not add up to 100 because of rounding.

ii — Compiled and adapted from the Source.

Source : Gov. of India, Planning Commission, **Third Five Year Plan, op. cit.,** p. 95.

TABLE VI-A-28 : AGGREGATE PROJECTIONS OF ALTERNATIVE CONSISTENCY MODELS OF THE INDIAN FOURTH FIVE YEAR PLAN, 1966-1971

(At 1959/60 Prices) (In Rs. Crores)

Item	1960-61 (Actual)	1970-71 (Projected) Model A	Model B	Model C	Model D	Model E
1. Gross Capital Formation	2,510	6,400	5,300	6,400	6,400	6,300
2. National Consumption	13,985	24,800	21,300	21,300	24,800	23,830
3. Government Consumption	1,380	3,400	3,400	3,400	3,400	2,800
4. Household Consumption	12,605	21,400	17,900	17,900	21,400	21,030
5. Gross Domestic Expenditure	16,495	31,200	26,600	27,700	31,200	30,130
6. Minimum Trade Deficit	—	392	198	36	204	135
7. Ratio of Electrical Equipment Imports to G.D.P.	0.45	0.15	0.25	0.15	0.15	0.15
8. Ratio of Transport Equipment Imports to G.D.P.	0.34	0.15	0.25	0.15	0.15	0.15
9. Ratio of Non-electrical Equipment Imports to G.D.P.	0.67	0.25	0.35	0.25	0.25	0.25
10. Iron and Steel Ouput	..	1,595	1,428	1,477	1,652	1,652

Notes : i — Model D = the original model of Perspective Planning Division, Planning Commission.

ii — Model E = the revised model of that division.

iii — (—) = not applicable, and (. .) = not states and not available.

iv — Model E data are at 1960/61 prices, except item (10) which is at 1959/60 prices.

v — The minimum trade deficit is the difference between minimum merchandise imports and merchandise exports which is assumed in this exercise at Rs. 1,078 crores, at 1959/60 prices.

vi — (5) = (1) + (2) = (1) + (3) + (4).

ivi — Compiled and adapted from the Source.

Source : Gov. of India, Planning Commission, Perspective Planning Divison, **Notes on Perspective of Development, India : 1960/61 to 1975-76, Op. cit.**, pp. 11, 24 and 178-181.

TABLE VI-A-29 : PHYSICAL OUTPUT LEVELS OF SELECTED INDUSTRIES CORRRESPONDING TO THE ALTERNATIVE MODELS OF THE INDIAN FOURTH FIVE YEAR PLAN, 1966-71

Sector	Unit of Measures	1960-61 (Actual)	1970-71 (Projected)			
			Model A	Model B	Model C	Model D
1. Foodgrains	Mill. tons	81	129	119	119	129
2. Cotton and Other Textiles (Yarn)	000' tons	800	1,459	1,155	1,156	1,459
3. Other Agricultural Products	Index	100	162	143	143	162
4. Chemical Fertilizers (N.)	000' tons	99	1,664	1,506	1,506	1,664
5. Chemical Fertilizers (P_2O_5)	000' tons	54	908	822	822	908
6. Petroleum Products	Mill. tons	5.8	24.2	21.3	21,9	24.2
7. Coal	Mill. tons	55.5	150	130	139	150
8. Electricity (generation)	Bill. KWHs.	20	89	78	82	89
9. Iron and Steel (Ingot)	Mill. tons	3.35	16.8	14.5	16.6	16.8
10. Electrical Equipment	Index	100	379	325	367	379
11. Transport Equipment	Index	100	319	275	310	319
12. Non-electrical Equipment	Index	100	369	312	353	369

Notes : i — Model D = Model A = Model of Perspective Planning Division, Planning Commission.
ii — Adapted from the Source.

Source : Gov. of India, Planning Commission, Perspective Planning Division, **Notes on Perspective of Development, India : 1960-61 to 1975-76, Op. Cit.** pp. 178-180.

TABLE VI-4-30 : AGGREGATE PROJECTIONS OF ALTERNATIVE CONSISTENCY MODELS OF THE EGYPTIAN SECOND FIVE YEAR PLAN, 1965 - 70

(At 1959/60 Prices) (In £ E Mns.)

ITEM	Model I 1	Model I 2	Model I 3	Model I 4	Model I 5	Model II 1	Model II 2	Model II 3	Model II 4	Model II 5	Model III 1	Model III 2	Model III 3	Model III 4	Model III 5	Model IV 1	Model IV 2	Model IV 3	Model IV 4	Model IV 5	Model V (The Chosen Model) 1	Model V 2	Model V 3	Model V 4	Model V 5
I - NATIONAL INCOME (AT FACTOR COST)	1,917	2,026	2,155	2,330	2,529	1,933	2,076	2,229	2,395	2,570	1,863	1,932	2,020	2,127	2,272	1,859	1,976	2,127	2,340	2,591	1,858	1,992	2,149	2,338	2,570
1 - Share of Agriculture	503	513	539	571	633	537	562	593	623	655	503	513	539	571	633	503	513	539	571	633	503	513	539	571	633
2 - Share of Electricity & Industry	492	528	567	609	654	512	586	669	761	855	478	497	518	539	561	468	508	563	628	699	475	524	580	635	702
3 - Share of Construction	74	79	75	91	98	115	117	111	109	106	70	72	75	77	79	76	83	82	106	132	65	79	83	104	121
4 - Share of Services	848	906	974	1,059	1,144	769	811	856	902	954	814	850	888	940	999	812	872	943	1,035	1,127	815	876	947	1,028	1,114
II - CUSTOMS DUTIES	135	144	150	155	155	-	-	-	-	-	113	120	122	125	122	145	143	140	137	129	135	139	140	156	157
III - NATIONAL INCOME (AT MARKET PRICES) = (I + II)	2,052	2,170	2,305	2,485	2,684	1,933	2,076	2,229	2,395	2,570	1,978	2,052	2,142	2,252	2,394	2,004	2,119	2,267	2,477	2,720	1,993	2,131	2,289	2,494	2,727
1 - National Consumption	1,680	1,790	1,907	2,043	2,177	1,548	1,646	1,758	1,878	2,005	1,620	1,696	1,776	1,871	1,958	1,624	1,704	1,790	1,894	1,992	1,624	1,704	1,790	1,894	1,992
i - Private Consumption	1,256	1,334	1,416	1,515	1,608	1,140	1,203	1,277	1,356	1,440	1,211	1,264	1,319	1,387	1,446	1,205	1,253	1,303	1,367	1,421	1,205	1,253	1,303	1,367	1,421
ii - Public Consumption	424	456	491	528	569	408	443	481	522	565	409	432	457	484	512	419	451	487	527	571	419	451	487	527	571
2 - Total Investment = (VI + VII)	500	538	566	627	685	425	459	495	533	576	374	391	403	427	454	438	446	474	550	625	368	426	464	580	675
i - Share of Agriculture	84	89	65	66	71	84	87	80	65	59	84	90	63	66	70	90	90	55	69	71	90	90	55	69	71
ii - Share of Electricity & Industry	223	240	258	278	292	120	136	139	183	207	152	154	163	158	147	155	141	198	197	206	86	121	188	227	256
iii - Share of Construction	2	2	2	2	2						1	1	1	1	1	2	2	2	2	2	1	2	2	2	2
iv - Share of Services	176	187	206	226	245	196	206	221	235	247	122	126	139	147	161	171	188	194	232	266	171	188	194	232	266
v - Replacement & Renewal	15	20	35	55	75	25	30	35	50	65	15	20	35	55	75	20	25	25	50	80	20	25	25	50	80
3 - Net Exports	-128	-158	-168	-185	-178	-40	-29	-24	-16	-11	-16	-35	-37	-46	-18	-58	-31	+ 2	+33	+103	+ 1	+ 2	+34	+20	+60
IV - THE BALANCE OF PAYMENTS, NET CURRENT ACCOUNT = (III, 3 - £ E 10 Mns.)	-138	-168	-178	-195	-188	-40	-29	-24	-16	-11	-26	-45	-47	-56	-28	-68	-41	- 8	+23	+ 93	- 9	- 8	+24	+10	+50
V - TOTAL EMPLOYMENT (in Mns.)	7.8	8.3	8.7	9.1	9.5	7.7	8.2	8.7	9.2	9.7	7.8	8.2	8.3	8.6	8.8	7.8	8.2	8.6	9.1	9.6	7.7	8.2	8.6	9.1	9.6
1 - Share of Agriculture	3.9	4.1	4.2	4.3	4.4	3.9	4.1	4.4	4.5	4.6	3.9	4.1	4.2	4.3	4.4	3.9	4.1	4.2	4.3	4.4	3.9	4.1	4.2	4.3	4.4
2 - Share of Electricity & Industry	1.1	1.2	1.3	1.4	1.5	1.1	1.3	1.4	1.7	1.9	1.1	1.2	1.2	1.2	1.3	1.2	1.3	1.4	1.6	1.8	1.2	1.3	1.4	1.6	1.8
3 - Share of Construction	0.4	0.4	0.4	0.5	0.5	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.4	0.4	0.2	0.3	0.3	0.4	0.4
4 - Services	2.4	2.6	2.8	2.9	3.1	2.4	2.5	2.6	2.7	2.9	2.4	2.5	2.5	2.7	2.7	2.4	2.5	2.7	2.8	3.0	2.4	2.5	2.7	2.8	3.0
VI - TOTAL DOMESTIC SAVINGS = (III, 2 + IV)	362	370	388	432	497	385	430	471	517	565	348	346	356	371	426	370	405	466	573	718	359	418	488	590	725
VII - NET FLOW OF FOREIGN ASSISTANCE = (- IV)	138	168	178	195	188	40	29	24	16	11	26	45	47	56	28	68	41	8	-23	-93	9	8	-24	-10	-50

Notes : i — Items (1), (2) and (3) in III do not always add up to their respective totals because of rounding.

ii — Net Capital outflow, by way of repayment of maturing loans, of L.E. 10 Mns. is assumed and included in the total of each year in item IV, except in Model II.

iii — Item IV is year by year equal in magnitude to item VII. The first is viewed as a deficit or surplus in the current balance of payments. The second is considered from the view point of finance, i.e., financing the deficit by external assistance and using the surplus to repay maturing loans.

iv — Data of Model II do not include customs duties and the assumed L.E. 10 Mns. Capital out-flow, mentioned in note (ii), above.

v — Compiled and adapted from the Source.

Source : United Arab Republic, Ministry of Planning, **A Draft of the General Trends of the Secosd Five Year Plan for Economic anr Social Development, 1965/66 — 1969/70., Op. Cit.**, pp. 74-107.

TABLE VI-4-31 : SECTORAL INPUT - OUTPUT RELATIONS OF ALTERNATIVE CONSISTENCY MODELS OF THE EGYPTIAN SECOND FIVE YEAR PLAN, 1965 - 70 - MODEL (1), THE FIRST AND 5th YEARS, 1965/66 AND 1969/70.

(At 1959/60 Prices) (In £ E Mn)

Delivering Sectors \ Receiving Sectors	Intermediate Demand: Agriculture (1) 1st	Agriculture (1) 5th	Consumer Goods Industries (2) 1st	Consumer Goods Industries (2) 5th	Intermediate Goods Industries (3) 1st	Intermediate Goods Industries (3) 5th	Producer Goods Industries (4) 1st	Producer Goods Industries (4) 5th	Construction (5) 1st	Construction (5) 5th	Services (6) 1st	Services (6) 5th	Total Intermediate Demand (7 = 1 to 6) 1st	Total Intermediate Demand (7 = 1 to 6) 5th	Final Demand: Private Consumption (8) 1st	Private Consumption (8) 5th	Public Consumption (9) 1st	Public Consumption (9) 5th	Investment (10) 1st	Investment (10) 5th	Exports (11) 1st	Exports (11) 5th	Imports (12) 1st	Imports (12) 5th	Total National Product (13 = 7 to 11 - 12) 1st	Total National Product (13 = 7 to 11 - 12) 5th
1 - Agriculture	134.9	152.6	350.9	469.9	163.9	204.3	-	-	-	-	0.3	0.3	656.0	827.1	159.9	203.7	3.6	4.3	2.4	2.1	10.2	14.8	115.7	175.0	716.4	877.0
2 - Consumer Goods Industries	9.3	10.3	216.3	238.2	18.8	24.2	0.7	0.9	1.7	2.2	4.4	5.7	250.6	326.5	485.9	872.5	22.0	26.2	-	-	55.0	66.4	42.5	19.8	971.0	1,272.8
3 - Intermediate Goods Industries	50.3	59.2	113.1	191.3	151.3	207.4	47.9	65.2	93.4	125.6	44.3	57.5	499.5	661.8	79.8	101.5	27.6	32.8	3.8	17.2	151.2	193.1	127.5	166.0	634.4	839.8
4 - Producer Goods Industries	2.5	3.9	10.9	14.2	12.5	17.1	69.6	94.5	13.7	18.4	6.6	8.6	115.8	155.9	14.8	18.8	25.2	29.9	223.6	296.1	3.3	4.1	183.1	235.5	199.6	271.1
5 - Construction	0.3	0.2	0.9	1.2	1.8	2.6	0.9	4.2	-	-	2.3	4.5	7.4	9.7	-	-	4.9	5.8	219.2	294.0	-	-	-	-	231.5	309.5
6 - Services	10.5	18.4	81.7	107.6	54.0	73.8	13.0	27.6	48.5	65.1	124.3	160.4	338.0	442.1	215.2	410.6	67.1	80.0	50.9	75.3	133.6	164.4	12.3	27.8	892.7	1,145.3
7 - Total Interm. Consumption (= 1 to 6)	213.8	243.8	778.8	1,012.2	401.7	528.6	132.1	179.4	157.3	211.3	183.6	237.0	1,867.3	2,422.3	1,255.6	1,608.1	150.4	179.0	499.9	684.5	353.3	449.0	480.9	623.4	3,645.6	4,715.5
8 - Value Added	502.6	633.2	192.2	260.6	232.7	311.2	67.5	91.7	74.2	98.2	709.3	908.3	1,778.3	2,293.2	-	-	273.3	390.0	-	-	-	-	-	-	2,051.6	2,683.2
9 - Total Uses (= 7 + 8)	716.4	877.0	971.0	1,272.8	634.4	839.8	199.6	271.1	231.5	309.5	892.7	1,145.3	3,645.6	4,715.5	1,255.6	1,608.1	423.7	569.0	499.9	684.5	353.3	445.0	480.9	623.4	5,697.2	7,398.7

Notes: i - (-) = nil or negligible.
ii - Similar data for the intermediate years of the period are also available in the Source.
iii - Compiled and adapted from the Source.

Source: United Arab Republic, Ministry of Planning, - *Draft of the General Frame of the Second Five Year Plan* ..., Op. Cit., (Part II), pp. 4 - 8.

TABLE VI-A-32: SECTORAL INPUT-OUTPUT RELATIONS OF ALTERNATIVE CONSISTENCY MODELS OF THE EGYPTIAN SECOND FIVE YEAR PLAN 1965-70: MODEL (II). THE FIRST AND END YEARS, 1965/66 AND 1969/70

(At 1959/60 Prices) (In £ E Mns.)

Delivering Sectors \ Receiving Sectors	Intermediate Demand														Final Demand											
	Agriculture (1)		Consumer Goods Industries (2)		Intermediate Goods Industries (3)		Producer Goods Industries (4)		Construction (5)		Services (6)		Total Intermediate Demand (7 = 1 to 6)		Total Final Consumption (8)		Investment (9)		Exports (10)		Total Final Demand (11 = 8 + 9 + 10)		Imports (12)		Total National Product (13 = 7 + 11 - 12)	
	1st	5th	1st	5th	1st	5th	1st	5th	1st	5th	1st	5th	1st	5th	1st	5th	1st	5th	1st	5th	1st	5th	1st	5th	1st	5th
1 - Agriculture	149	179	148	186	325	417	-	-	-	-	28	30	650	812	110	139	-	-	24	32	134	171	7	4	777	979
2 - Consumer Goods Industries	5	7	2	2	-	-	1	1	-	-	55	62	63	72	596	812	-	-	56	61	652	873	175	128	540	817
3 - Intermediate Goods Industries	62	106	242	300	19	30	36	80	30	29	79	118	468	663	155	206	-	-	163	179	318	385	53	60	733	988
4 - Producer Goods Industries	-	-	-	-	-	-	-	-	45	72	8	10	53	82	30	40	167	294	1	25	198	359	134	229	117	212
5 - Construction	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	220	236	-	-	220	236	4	6	216	230
6 - Services	24	32	52	70	38	57	15	19	26	23	80	109	235	310	657	808	38	46	103	137	798	991	14	18	1,019	1,283
7 - Total Intermediate Consumption (= 1 to 6)	240	324	444	558	382	504	52	100	101	124	250	329	1,469	1,939	1,548	2,005	425	576	347	434	2,320	3,015	387	445	3,402	4,309
8 - Value Added	537	635	96	259	351	484	65	112	115	106	769	954	1,933	2,570	-	-	-	-	-	-	-	-	-	-	1,933	2,570
9 - Total Uses (= 7 + 8)	777	979	540	817	733	988	117	212	216	230	1,019	1,283	3,402	4,509	1,548	2,005	425	576	347	434	2,320	3,015	387	445	5,335	7,079

Notes: i - (-) = nil or negligible.

ii - The above data are the outcome of total re-arrangement of the original data to avoid double counting and to make these data more comparable to those of the other four models presented in Table VI-A-31, above, and Tables: VI-A-33, VI-A-34 & VI-A-35, below.

iii - Data for the intermediate years of the period are also available in the Source.

iv - Compiled and adapted from the Source.

Source: United Arab Republic, Ministry of Planning, *A Draft of the General Trends of the Second Five Year Plan ....*, Op. Cit., (Part II), pp. 6 - 10.

TABLE VI-A-33 : SECTORAL INPUT - OUTPUT RELATIONS OF ALTERNATIVE CONSISTENCY MODELS OF THE EGYPTIAN SECOND FIVE YEAR PLAN, 1965 - 70: MODEL (III), THE FIRST AND END YEARS, 1965/66 and 1969/70.

(At 1959/60 Prices) (In £ E Mns.)

Delivering Sectors \ Receiving Sectors	Intermediate Demand											
	Agriculture (1)		Consumer Goods Industries (2)		Intermediate Goods Industries (3)		Producer Goods Industries (4)		Construction (5)		Services (6)	
	1st	5th	1st	5th	1st	5th	1st	5th	1st	5th	1st	5th
1 - Agriculture	134.9	152.6	347.3	410.2	163.9	203.6	-	-	-	-	0.2	0.3
2 - Consumer Goods Industries	9.3	10.3	211.2	250.7	17.6	20.7	0.6	0.8	1.6	1.8	4.3	4.8
3 - Intermediate Goods Industries	30.3	59.2	109.5	130.5	145.9	172.3	46.0	53.6	89.5	101.4	42.9	46.3
4 - Produce Goods Industries	2.3	2.9	10.7	12.7	2.0	14.3	15.9	77.7	13.1	14.9	6.4	7.2
5 - Construction	0.3	0.2	0.9	1.1	1.8	2.2	0.8	1.0		-	3.4	3.8
6 - Services	16.3	18.6	79.6	94.1	52.3	62.4	12.3	14.3	46.4	52.3	120.1	135.0
7 - Total Interm. Consumption (= 1 to 6)	213.8	243.8	759.2	899.3	93.3	475.5	126.8	147.8	150.6	170.6	177.3	199.4
8 - Value Added	502.6	633.2	187.5	211.2	225.0	263.9	65.2	75.4	70.3	79.3	664.3	770.6
9 - Total Uses (= 7 + 8)	716.4	877.0	946.7	1,120.5	618.5	739.4	192.0	223.0	220.9	249.9	841.6	970.0

Delivering Sectors \ Receiving Sectors	Total Intermediate Demand (7 = 1 to 6)		Final Demand								Imports (12)		Total National Product (13 = 7 to 11 - 12)	
			Private Consumption (8)		Public Consumption (9)		Investment (10)		Exports (11)					
	1st	5th	1st	5th	1st	5th	1st	5th	1st	5th	1st	5th	1st	5th
1 - Agriculture	646.3	766.7	139.9	203.7	3.6	4.3	2.4	2.1	10.2	14.8	106.0	114.6	716.4	877.0
2 - Consumer Goods Industries	244.6	289.1	658.3	772.5	21.3	23.6	-	-	50.6	52.3	28.1	17.2	946.7	1,120.5
3 - Intermediate Goods Industries	484.1	565.3	76.7	89.9	26.8	29.5	2.1	8.1	245.3	180.0	116.3	133.4	618.5	739.4
4 - Produce Goods Industries	111.6	129.7	14.2	16.6	24.4	26.9	130.9	166.2	2.0	2.2	91.1	188.6	192.0	223.0
5 - Construction	7.2	8.3	-	-	4.8	5.2	208.9	236.4	-	-	-	-	220.9	249.9
6 - Services	327.4	377.1	302.4	363.1	64.8	71.9	29.7	41.3	120.7	125.7	3.4	9.3	841.6	970.0
7 - Total Interm. Consumption (= 1 to 6)	1,821.2	2,136.2	1,211.3	1,445.8	143.7	161.4	374.0	454.3	328.8	375.2	345.1	393.1	3,536.1	4,179.8
8 - Value Added	1,714.9	2,043.6	-		263.7	350.0	-	-	-	-	-	-	1,978.6	2,393.6
9 - Total Uses (= 7 + 8)	3,536.1	4,179.8	1,211.3	1,445.8	409.4	511.4	374.0	454.3	328.8	375.2	345.1	393.1	5,514.7	6,573.4

Notes: i - (-) = nil or negligible.
ii - Similar data for the intermediate years of the period are also available in the Source
iii - Compiled and adapted from the Source.

Source: United Arab Republic, Ministry of Planning, *A Draft of the General Trends of the Second Five Year Plan* ..., Op. Cit., (Part II), pp. 11 - 15.

TABLE VI-A-35 : SECTORAL INPUT-OUPUT RELATIONS OF ALTERNATIVE CONSISTENCY MODELS OF THE EGYPTIAN SECOND FIVE YEAR PLAN, 1965 - 70 : MODEL (V), THE FIRST AND END YEARS, 1965/66 AND 1969/70.

(At 1959/60 Prices) (In £ E Mns.)

Delivering Sectors \ Receiving Sectors	Intermediate Demand: Agriculture (1)		Consumer Goods Industries (2)		Intermediate Goods Industries (3)		Producer Goods Industries (4)		Construction (5)		Services (6)		Total Intermediate Demand (7 = 1 to 6)		Final Demand: Private Consumption (8)		Public Consumption (9)		Investment (10)		Exports (11)		Imports (12)		Total National Product (13 = 7 to 11 - 12)	
	1st	5th	1st	5th	1st	5th	1st	5th	1st	5th	1st	5th	1st	5th	1st	5th	1st	5th	1st	5th	1st	5th	1st	5th	1st	5th
1 - Agriculture	134.9	152.6	352.0	438.7	164.0	204.7	-	-	-	-	0.3	0.3	631.2	796.3	139.9	203.7	3.6	4.3	2.1	2.1	10.2	14.8	110.6	144.2	716.4	877.0
2 - Consumer Goods Industries	9.3	10.3	210.1	250.0	18.0	26.2	0.5	1.2	1.3	2.1	4.2	5.4	243.4	295.2	654.0	757.3	21.9	25.7	-	-	66.6	100.7	30.4	17.3	955.5	1,161.6
3 - Intermediate Goods Industries	50.3	59.2	109.0	127.8	147.4	228.3	37.8	69.2	67.5	121.2	42.4	54.2	454.4	659.9	76.0	88.1	24.1	29.6	3.6	26.8	164.2	231.0	99.1	100.8	625.2	934.6
4 - Producer Goods Industries	2.5	2.9	10.6	12.4	12.6	20.2	54.8	100.1	9.9	17.8	6.3	8.1	96.7	161.5	14.2	16.4	31.2	36.6	154.9	260.1	4.0	8.2	142.3	209.9	158.7	292.9
5 - Construction	0.3	0.2	0.9	1.1	2.0	3.7	0.7	1.4	-	-	3.4	4.3	7.3	10.7	-	-	-	-	171.9	313.7	-	-	-	-	179.2	324.4
6 - Services	16.5	16.6	80.6	98.7	53.1	84.4	10.3	19.1	35.3	62.7	118.7	150.4	314.5	433.9	300.4	336.0	62.4	64.4	35.6	72.5	145.8	198.2	7.1	21.2	851.6	1,103.8
7 - Total Intermediate Consumption (= 1 to 6)	213.8	243.8	763.2	928.7	397.1	567.5	104.1	191.0	114.0	203.8	175.3	222.7	1,767.5	2,337.5	1,204.5	1,421.5	145.2	180.6	368.1	675.2	390.8	552.9	389.5	493.4	3,486.6	4,694.3
8 - Value Added	502.6	633.2	192.3	232.9	228.1	367.1	54.6	101.9	65.2	120.6	676.3	881.8	1,719.1	2,336.8	-	-	273.3	390.0	-	-	-	-	-	-	1,992.4	2,726.8
9 - Total Uses (= 7 + 8)	716.4	877.0	955.5	1,161.6	625.2	934.6	158.7	292.9	179.2	324.4	851.6	1,103.8	3,486.6	4,694.3	1,204.5	1,421.5	418.5	570.6	368.1	675.2	390.8	552.9	389.5	493.4	5,479.0	7,421.1

Notes: i - (-) = nil or negligible.
ii - Similar data for the intermediate years of the period also available in the Source.
iii - Compiled and adapted from the Source.

Source: United Arab Republic, Ministry of Planning, *A Draft of the General Trends of the Second Five Year Plan ..*, Op. Cit., (Part II), pp. 21 - 25.

TABLE VI-A-34 : SECTORAL INPUT - OUTPUT RELATIONS OF ALTERNATIVE CONSISTENCY MODELS OF THE EGYPTIAN SECOND FIVE YEAR PLAN, 1965 - 70 : MODEL (IV), THE FIRST AND END YEARS, 1965/66 and 1969/70.

(At 1959/60 Prices)) (In £ E Mn.)

Delivering Sectors \ Receiving Sectors	Intermediate Demand														Final Demand										Total National Product (13 = 7 to 11 - 12)	
	Agriculture (1)		Consumer Goods Industries (2)		Intermediate Goods Industries (3)		Producer Goods Industries (4)		Construction (5)		Services (6)		Total Intermediate Demand (7 = 1 to 6)		Private Consumption (8)		Public Consumption (9)		Investment (10)		Exports (11)		Imports (12)			
	1st	5th	1st	5th	1st	5th	1st	5th	1st	5th	1st	5th	1st	5th	1st	5th	1st	5th	1st	5th	1st	5th	1st	5th	1st	5th
1 - Agriculture	134.9	152.6	352.0	438.7	164.0	204.7	-	-	-	-	0.3	0.3	651.2	796.3	139.9	203.7	3.6	4.3	2.4	2.1	10.2	14.8	110.9	144.2	716.4	877.0
2 - Consumer Goods Industries	9.3	10.3	212.9	262.5	18.2	27.3	0.3	1.0	1.5	1.9	4.2	5.4	246.6	308.4	654.0	757.3	21.9	25.7	-	-	66.6	100.7	33.6	9.3	955.5	1,182.6
3 - Intermediate Goods Industries	50.3	59.2	110.5	135.7	148.8	239.0	38.2	70.5	80.6	100.5	42.7	54.2	471.1	659.1	76.0	88.1	26.1	29.9	4.3	24.8	160.9	225.6	113.2	76.7	625.2	930.5
4 - Producer Goods Industries	2.5	2.9	10.7	13.2	12.6	21.2	55.4	102.1	11.8	14.7	6.4	8.1	99.4	162.2	14.2	16.4	31.2	36.6	184.3	240.7	4.0	8.2	134.4	191.2	138.7	292.9
5 - Construction	0.3	0.2	0.9	1.1	2.0	3.6	0.7	1.3	-	-	3.4	4.3	7.3	10.5	-	-	-	-	204.7	290.7	-	-	-	-	212.0	301.2
6 - Services	16.5	18.6	80.6	100.0	53.1	86.3	10.3	19.1	41.7	52.0	118.7	150.4	320.9	426.4	300.4	356.0	62.4	64.4	42.4	67.1	139.8	183.2	7.7	8.3	858.8	1,088.8
7 - Total Intermediate Consumption (= 1 to 6)	213.8	243.8	767.6	951.2	398.7	582.1	105.1	194.0	135.6	169.1	175.7	222.7	1,796.5	2,362.9	1,204.5	1,421.5	145.2	180.9	438.1	625.4	381.5	532.3	439.2	429.9	3,326.6	4,693.0
8 - Value Added	502.6	633.2	187.9	231.4	226.5	368.4	53.6	98.9	76.4	132.1	683.1	866.1	1,730.1	2,330.1	-	-	273.3	390.0	-	-	-	-	-	-	2,003.4	2,720.1
9 - Total Uses (= 7 + 8)	716.4	877.0	955.5	1,182.6	625.2	950.5	158.7	292.9	212.0	301.2	858.8	1,088.8	3,526.6	4,693.0	1,204.5	1,421.5	418.5	570.9	438.1	625.4	381.5	532.3	439.2	429.9	5,330.0	7,413.1

Notes: i - (-) = nil or negligible.
ii - Similar data for the intermediate years of the period are also available in the Source.
iii - Compiled and adapted from the Source.

Source: United Arab Republic, Ministry of Planning, *A Draft of the General Trends of the Second Five Year Plan* ..., Op. Cit., (Part II), pp. 16 - 20.

TABLE VII-A-36 : INDEX NUMBER OF WHOLESALE PRICES IN INDIA AND EGYPT, (1945 — 1966)

Year	India		Egypt	
	Series : (1) 1952-53 = 100	**Series : (2) 1948-49 = 100**	**Series : (1) 1939 = 100**	**Series : (2) 1948-49 = 100**
1945 — 46	67.3	67.9	316	98.1
46 — 47	74.4	75.1	311	96.6
47 — 48	88.0	88.8	324	100.6
48 — 49	99.1	100.0	322	100.0
49 — 50	103.6	104.5	376	116.8
1950 — 51	111.8	112.8	383	118.9
51 — 52	114.1	115.1	372	115.5
52 53	100.0	100.9	355	110.2
53 — 54	104.6	105.5	345	107.1
54 — 55	97.4	98.3	351	109.0
1955 — 56	92.5	93.3	389	120.8
56 — 57	105.3	106.3	422	131.0
57 — 58	108.4	109.4	417	129.5
58 — 59	112.9	113.9	417	129.5
59 — 60	117.1	118.2	418	129.8
1960 — 61	124.9	126.0	425	132.0
61 — 62	125.1	126.2	421	130.7
62 — 63	127.9	129.1	419	130.1
63 — 64	135.3	136.5	436	135.4
64 — 65	152.7	154.1	470	146.0
1965 — 66	165.1	166.6	509	158.1

Notes : The second series in each case is obtained from the first series and the information provided in the Sources.

Sources : For India, U.N. **Monthly Bulletin of Statistics,** 1951 issues and onwards; Gov. of India, Planning Commission, **Fourth Five Year Plan : A Draft Outline, Op. cit.,** pp. 419-20; and **Eastern Economist,** Vol. 48, No. 12, (March, 1967), p. 579. For Egypt, U.N., **Monthly Bulletin of Statistics,** 1951 issues and onwards; and United Arab Republic, Central Agency for Public Mobilization and Statistics, **Statistical Indicators of the U.A.R. :** 1952-1965, (Cairo, July, 1966), (in Arabic), p. 35.

TABLE VII-A 37 : NATIONAL INCOME IN INDIA AND EGYPT AT CURRENT AND CONSTANT PRICES

(1945 — 1966)

Year	India (Rs. Crores)		Egypt (L.E. Mns.)	
	At Current Prices	At 1948-49 Prices	At Current Prices	At 1948-49 Prices
1945 — 46	6,040	8,896	505	515
46 — 47	6,671	8,883	508	526
47 — 48	7,528	8,478	592	588
48 — 49	8,650	8,650	712	712
49 — 50	9,010	8,820	817	699
1950 — 51	9.530	8,850	823	692
51 — 52	9,970	9,100	905	784
52 — 53	9,820	9,460	806	731
53 — 54	10,480	10,030	847	791
54 — 55	9,610	10,280	920	844
1955 — 56	9,980	10,480	965	799
56 — 57	11,310	11,000	1,067	815
57 — 58	11,390	10,890	1,126	869
58 — 59	12,600	11,650	1,157	893
59 — 60	12,950	11,860	1,285	990
1960 — 61	14,140	12,730	1,364	1,050
61 — 62	14,800	13,060	1,412	1,087
62 — 63	15,400	13,310	1,537	1,184
63 — 64	17,210	13,970	1,670	1,283
64 — 65	20,010	15,050	1,762	1,350
1965 — 66	20,010	14,490	..	..

Notes : In the Indian case :

i — The two series are official series, except data for the years 1945/46-1947/48 in the current prices series which are obtained by deflating (by the wholesale prices index, Table VII-A-36, above) the corresponding data in the 1948-49 prices series.

In the Egyptian case :

ii — Data for the years 1945/46-1951/52 are interpolated from calendar years to fiscal years, e.g., 1945/46 figure = (1945 figure + 1946 figure) /2.

iii — Data for the years 1960/61-1964/65 in the current prices series are at 1959/60 prices, except data on "construction" component which are at current prices (see, Sources).

iv — To get the 1948-49 prices series, the current prices series is adjusted by wholesale prices index, Table VII-A-36, above, taking the information in note (iii) into consideration.

Sources : For India, V.K.R.V. Rao and Others, **Papers on National Income and Allied Topics, Vol. II, Op. cit.**, pp. 23-24 ; and **Eastern Economist,** Vol. 18, No. 22, (June, 1966), p. 1088, and **Annual Number,** 1967, (Dec., 1966), p. 1372.

For Egypt, S.H. Abd-El-Rahman, **A Survey of the Foreign Trade of Egypt.., Op. cit.**, p. 354 ; United Arab Republic, Department of Statistics and Census, **Ten Years of Revolution : Statistical Atlas,** (Cairo, July, 1962), Table (9) ; and United Arab Republic, Ministry of Planning, **Follow-up and Evaluation of the First Five Year Plan : 1960/61-1964-65, Vol. I, Op. cit.**, pp. 36-37.

TABLE VII-A-38 : PLANNED NATIONAL INCOME IN INDIA AND EGYPT AT CONSTANT AND 1948-49 PRICES, (1950 — 1966)

Year		India (Rs. Crores)		Egypt (L.E. Mns.)	
India	Egypt	At Constant Prices	At 1948-49 Prices	At Constant Prices	At 1948-49 Prices
First Period					
Base Year					
1950 — 51	1950 — 51	9,000	9,000	789	664
Planned Years					
51 — 52	51 — 52	9,200	9,200	823	692
52 — 53	52 — 53	9,400	9,400	857	721
53 — 54	53 — 54	9,599	9,599	891	750
54 — 55	54 — 55	9,799	9,799	925	778
1955 — 56	1955 — 56	10,000	10,000	959	807
Second Period					
Base Year					
1955 — 56	1955 — 56	10,800	10,704	965	799
Planned Years					
56 — 57	56 — 57	11,336	11,235	996	825
57 — 58	57 — 58	11,872	11,767	1,027	850
58 — 59	58 — 59	12,408	12,298	1,058	876
59 — 60	59 — 60	12,944	12,829	1,088	901
1960 — 61	1960 — 61	13,480	13,361	1,119	927
Third Period					
Base Year					
1960 — 61	1959 — 60	14,500	11,508	1,282	988
Planned Years					
61 — 62	60 — 61	15,399	12,221	1,385	1,067
62 — 63	61 — 62	16,298	12,935	1,487	1,146
63 — 64	62 — 63	17,197	13,648	1,590	1,225
64 — 65	63 — 64	18,096	14,362	1,692	1,304
1965 — 66	1964 — 65	18,995	15,075	1,795	1,383

Notes : i — In the constant prices series, for India, data of the first period are at 1948-49 prices, those of the second, and 1952-53 prices, and those of the third, at 1960-61 prices. For Egypt, Data of the first, second and third periods are at 1950-51 prices, 1955-56 prices and 1959-60 prices, respectively.

ii — For India and Egypt, the base and end years data for each period in the constant prices series are taken from Chapters V and VI, above. The interim years data are interpolated on the bases of the planned rates of growth of national income, provided in these two Chapters.

Sources : See Sources and Statistical information provided in Chapters V and VI, above.

TABLE VII-A-39 : NATIONAL INCOME IN INDIA AND EGYPT, PLANNED AND ACTUAL AT 1948-49 PRICES, (1945 — 1966)

Year		Planned				Actual			
		India (Rs. Crores)		Egypt (L.E. Mns.)		India (Rs. Crores)		Egypt (L.E. Mns.)	
India	Egypt	N. Income	% Change from Prev-ious Year	N. Income	% Change from Prev-ious Year	N. Income	% Change from Prev-ious Year	N. Income	% Change from Prev-ious Year
1950 — 51		—	—	—	—	8,896	-.-	515	-.-
46 — 47		—	—	—	—	8,883	—0.1	526	2.1
47 — 48		—	—	—	—	8,478	—4.6	588	11.8
48 — 49		—	—	—	—	8,650	2.0	712	21.1
49 — 50		—	—	—	—	8,820	2.0	699	—1.8
1945 — 46		—	—	—	—	8,850	0.3	692	—1.0
51 — 52		9,200	2.2	692	4.2	9,100	2.8	784	13.3
52 — 53		9,400	2.2	721	4.2	9,460	4.0	731	—6.8
53 54		9,599	2.1	750	4.0	10,030	6.0	791	8.3
54 — 55		9,799	2.1	778	3.7	10,280	2.5	844	6.7
1955 — 56		10,000	2.0	807	3.7	10,480	1.9	799	—5.3
56 — 57		11,235	5.0	825	3.2	11,000	5.0	815	2.0
57 — 58		11,767	4.7	850	3.0	10,890	—1.0	869	6.6
58 — 59		12,298	4.5	876	3.1	11,650	7.0	893	2.8
59 — 60		12,829	4.3	901	2.8	11,860	1.8	900	10.7
1960 — 61		13,361	4.1	927	2.9	12,730	7.3	1,050	6.1
61 — 62	60 — 61	12,221	6.2	1,067	8.0	13,060	2.6	1,050	6.1
62 — 63	61 — 62	12,935	5.8	1,146	7.4	13,310	1.9	1,087	3.5
63 — 64	62 — 63	13,648	5.5	1,225	6.9	13,970	5.0	1,184	8.9
64 — 65	63 — 64	14,362	5.2	1,304	6.4	15,050	7.7	1,283	8.4
1965 — 66	1964 — 65	15,075	5.0	1,383	6.1	14,490	—3.7	1,350	5.2

Notes : i — (—) = not planned.

ii — in the Egyptian case, the year 1960-61 is in both the second and the third periods. However, actual national income for that year, in the second period, has not been corrected from the third period planning effects, simply because it is virtually impossible to quantify these effects.

iii — The yearly change of the first year in each period is obtained as the difference between its value and the value of the base year of the period. See, Table VII-A-38, above.

Sources : See Sources of Tables VI-A-37 and VI-A-38, above.

TABLE VII-A-40 : PLANNED AND ACTUAL ANNUAL RATES OF CHANGE OF NATIONAL INCOME IN INDIA AND EGYPT, (1951 — 1966)

No. of Observations	Year		Annual Rates of Change				(P — A)		$(P — A)^2$		$(A)^2$	
			Planned (P)		Actual (A)							
	India	Egypt	India	Egypt	India	Egypt	India	Egypt	India	Egypt	India	Egypt
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1	1951 — 52	1951 — 52	2.2	4.2	2.8	13.3	—0.6	—9.1	0.36	82.81	7.84	176.89
2	52 — 53	52 — 53	2.2	4.2	4.0	—6.8	—1.8	11.0	3.24	121.00	16.00	46.24
3	53 — 54	53 — 54	2.1	4.0	6.0	8.3	—3.9	—4.3	15.21	18.49	36.00	68.89
4	54 — 55	54 — 55	2.1	3.7	2.5	6.7	—0.4	—3.0	0.16	9.00	6.25	44.89
5	1955 — 56	1955 — 56	2.0	3.7	1.9	—5.3	0.1	9.0	0.01	81.00	3.61	28.09
6	1956 — 57	1956 — 57	5.0	3.2	5.0	2.0	0.0	1.2	0.00	1.44	25.00	4.00
7	57 — 58	57 — 58	4.7	3.0	—1.0	6.6	5.7	—3.6	32.49	12.96	1.00	43.56
8	58 — 59	58 — 59	4.5	3.1	7.0	2.8	—2.5	0.3	6.25	0.09	49.00	7.84
9	59 — 60	59 — 60	4.3	2.8	1.8	10.7	2.5	—7.9	6.25	62.41	3.24	114.49
10	1960 — 61	1960 — 61	4.1	2.9	7.3	6.1	—3.2	—3.2	10.24	10.24	53.29	37.21
11	1961 — 62	1960 — 61	6.2	8.0	2.6	6.1	3.6	1.9	12.96	3.61	6.76	37.21
12	62 — 63	61 — 62	5.8	7.4	1.9	3.5	3.9	3.9	15.21	15.21	3.61	12.25
13	63 — 64	62 — 63	5.5	6.9	5.0	8.9	0.5	—2.0	0.25	4.00	25.00	79.21
14	64 — 65	63 — 64	5.2	6.4	7.7	8.4	—2.5	—2.0	6.25	4.00	59.29	70.56
15.	1965 — 66	1964 — 65	5.0	6.1	—3.7	5.2	8.7	0.9	75.69	0.81	13.69	27.04

Note : The above data are based on data of Table VIII-A-39, above.

Source : See Sources of Table VII-A-39, above.

TABLE VII-A-41 : ACTUAL NATIONAL INCOME AND NATIONAL INCOME CHANGES BY INDUSTRIAL ORIGIN IN INDIA AND EGYPT,

1951 - 1966

(At 1948 - 49 Prices)) | ((In Rs. Crores, for India, and £ E Mns., for Egypt)

Industrial Origin	Sectoral Composition								Sectoral Growth Indices						Sectoral Contribution to Total Change					
	Base Year (1950-51)		End Year, Period I (1955-56)		End Year, Period II (1960-61)		End Year, Period III (*)		Period I (1950/51= 100)		Period II (1955/56= 100)		Period III (**) (Base Year= 100)		Period I		Period II		Period III	
	India	Egypt	India	Egypt	India	Egypt	India	Egypt	India	Egypt	India	Egypt	India	Egypt	India	Egypt	India	Egypt	India	Egypt
1 - Agriculture & Allied Pursuits	4,340	216.6	5,020	258.3	5,900	309.7	5,810	367.2	115.7	119.3	117.5	119.9	98.5	117.7	680	41.7	880	51.4	-90	55.3
2 - Village & Small-Scale Industries	880	94.8	920	140.8	910	228.9	1,120	314.6	104.5	148.5	98.9	162.6	123.1	153.5	40	46.0	-10	88.1	210	109.7
3 - Organized Industries, Electricity & Minerals	600		840		1,200		1,930		140.0		142.9		160.8		240		360		730	
4 - Commerce, Transport & Communications	1,660	206.2	1,970	127.5	2,460	190.1	2,650	238.9	118.7	61.8	124.9	149.1	107.7	139.5	310	-78.7	490	62.6	190	67.6
5 - Other Services	1,370	174.4	1,730	272.4	2,260	321.3	2,980	429.3	126.3	156.2	130.6	117.9	131.9	142.2	360	98.0	530	48.9	720	127.4
Total	8,850	692.0	10,480	799.0	12,730	1,050.0	14,490	1,350.0	118.4	115.5	121.5	131.4	113.8	136.4	1,630	107.0	2,250	251.0	1,760	360.0

(Egypt figures for items 2 and 3 are bracketed together.)

Notes: i - (*) - 1965/66, for India, and 1964/65, for Egypt.
ii - (**) - 1960/61, for India, and 1959/60, for Egypt.
iii - Data on the Sectoral composition for the year 1959/60, for Egypt are : 311.9, 204.9, 171.3 and 301.9 for items (1), (2 & 3), (4) and (5), respectively.
iv - For the break-up of items (2) and (3) in the end year of period III, for India, the percentage distribution of national income by sector in 1964/65 was used.
v - For the Egyptian Sectoral Composition of national income in 1950/51, the percentage distribution of G.D.P. in that year was used. .
vi - Compiled and adapted from the Sources.

Sources: For India, Gov. of India, Central Statistical Organization, *Estimates of National Income, 1948 - 49 to 1959 - 60, Op. Cit.*, pp. 2 - 3 & 22, and *Estimates of National Income, 1964 - 65*, (New Delhi, March, 1966), pp. 1 - 5; and Gov. of India, Planning Commission, *Fourth Five Year Plan : A Draft Outline, Op. Cit.*, p. 3.
For Egypt, B. Hansen and D. Mead, *The National Income of the U.A.R. (Egypt), 1939 - 1962, Op. Cit.*, p. 8; S.H. Abd-El-Rahman, *A Survey of the Foreign Trade of Egypt ..., Op. Cit.*, pp. 284 & 354; United Arab Republic, Department of Statistics and Census, *Ten Years of Revolution : Statistical Atlas, Op. Cit.*, Table (9); and United Arab Republic, Ministry of Planning, *Follow-up and Evaluation of the First Five Year Plan: 1960/61 - 1964/65*, Vol. I, *Op. Cit.*, pp. 34 - 43.

TABLE VII-A-42 : MAIN TARGETS AND ACHIEVEMENTS OF PRODUCTION AND DEVELOPMENT BY INDUSTRIAL ORIGIN IN INDIA.

1951 - 1966.

Sector and Item	Unit	Base Year (1950/51) Actual	(Period I (1951-56) End Year (1955/56) Target	Achievement	Period II (1956-61) End Year (1960/61) Target	Achievement	Period III (1961-66) End Year (1965/66) Target	Achievement
I - *AGRICULTURE & COMMUNITY DEVELOPMENT*								
1 - Foodgrains	Mn. tons	54.4	62.7	69.2	81.8	82.0	101.6	72.3
2 - Cotton	Mn. bales	2.9	4.2	4.0	6.5	5.4	7.0	4.7
3 - Sugar - Cane (gur)	Mn. tons	5.7	6.4	6.1	7.9	11.2	10.2	11.8
4 - Oilseeds	Mn. tons	5.2	5.6	5.7	7.6	7.0	10.0	6.1
5 - Jute	Mn. bales	3.3	5.4	4.2	5.6	4.1	6.2	4.5
6 - Tea	000' tons	275	..	285	318	321	408	376
7 - Community Development Blocks	Nos	-	..	1,075	3,111	3,137	5,223	5,237
8 - Co-operative Agricultural Credit Societies	000 Nos.	105	..	160	.	212	230	..
II - *IRRIGATION & POWER*								
9 - Area Irrigated (net)	Mn. acres	52	71	67	88	70	90	76
10 - Electricity (installed capacity)	Mn. KW.	2.3	3.6	3.4	6.9	5.7	12.7	10.2
III - *MINERALS*								
11 - Iron ore	Mn. tons	3.1	4.1	4.4	12.7	11.0	32.5	23.4
12 - Coal	Mn. tons	32.8	39.6	39.0	61.0	55.7	98.6	70.3
IV - *LARGE-SCALE INDUSTRIES*								
13 - Finished Steel	Mn. tons	1.0	1.7	1.3	4.3	2.4	6.8	4.5
14 - Aluminium	000' tons	4.0	12.2	7.4	25.4	18.3	80.0	61.4
15 - Machine Tools (graded value)	Rs. Crores	3.4	..	7.9	30.0	72.4	300.0	293.0
16 - Power Driven Pumps	000 Nos.	35	83	37	86	105	150	230
17 - Ball & Roller Bearings	Mn Nos.	0.1	1.2	0.9	2.4	3.2	15.0	8.8
18 - Diesel engines (stationary)	000' Nos.	5.5	50.0	10.4	21.5	43.2	66.0	92.6
19 - Automobiles	000' Nos.	16.5	30.0	25.2	68.0	69.7	150.0	111.5
20 - Railway Locomotives	Nos.	[illegible]	173	179	400	272	360	276

TABLE VII-A-42: MAIN TARGETS AND ACHIEVEMENTS OF PRODUCTION AND DEVELOPMENT BY INDUSTRIAL ORIGIN IN INDIA

1951 — 1966. (Cont.)

Sector and Item	Unit	Base Year (1950/51)	(Period I (1951-56) End Year (1955/56)		Period II (1956-61) End Year 1960/61)		Period III (1961-66) End Year (1965/66)	
		Actual	Target	Achievement	Target	Achievement	Target	Achievement
21 - Petroleum Products	Mn. tons	0.2	4.3	3.6	4.4	5.8	9.9	9.5
22 - Glass & Glass ware	000' tons	94	169	127	203	229	447	..
23 - Cement	Mn. tons	2.7	4.9	4.7	13.0	7.9	13.2	10.8
24 - Nitrogenous Fertilizers (in terms of N)	000' tons	9	91	80	295	98	800	224
25 - Phosphatic Fertilizers (in terms of P_2O_5)	000 tons	9	30	12	122	54	400	120
26 - Sulphuric Acid	000 tons	101	203	167	474	360	1,500	654
27 - Paper & Paperboard	000' tons	116	203	190	350	343	700	559
28 - Bicycles	Mn. Nos.	0.1	0.5	0.5	1.3	1.1	2.0	1.6
29 - Electric Transformers (33 KV & above)	Mn. KVA	0.2	0.5	0.6	1 4	1.4	3.5	4.5
30 - Cotton Textiles (mill made)	Mn. metres	3,402	4,298	4,665	4,892	4,616	5,304	4,512
31 - Sugar	Mn. tons	1.1	1.5	1.9	2.3	3.0	3.5	3.6
V - *TRANSPORT & COMMUNICATIONS*								
32 - Railways (freight carried)	Mn. tons	93.0		115.9	164.6	156.2	249.4	205.0
33 - Roads (surfaced including Highways)	000 Kms.	157		183	229	236	276	284
34 - Shipping (Coastal & overseas)	000 GRT	391		480	900	857	1,040	1,541
VI - *SOCIAL SERVICES*								
35 - Primary and Junior Basic Schools	000' Nos	209.7	..	278.1	330.9	330.4	405.7	405.9
36 - School-going children in the age group 6 - 11	%	42.6	60.0	50.5	63.0	61.1	78.1	..
37 - Technical Education (Engin. degree level intake)	000' Nos.	4.1		5.9	6.9	13.8	19.1	24.7
38 - Hospital Beds	000 Nos.	113		125	155	186	240	240
39 - Doctors	000' Nos.	56		65	70	70	81	86
40 - Family Planning Centres	000' Nos.	-	..	0.2	2.8	1.7	8.2	11.5

Notes:

i - (-) = nil or negligible

ii - (..) = not fixed or not available.

iii - The above data slightly differ, in some items, from those of Tables V-A-10, V-A-12, VI-A-21 and VI-A-29, above, as the former data have been adjusted for change in statistical coverage and methods of estimation.

iv - Item (7) includes national extension service blocks.

v - Compiled and adapted from the Sources.

Sources: Gov. of India, Central Statistical Organization. *Statistical Pocket-Book of the Indian Union, 1966*, (New Delhi, Dec., 1966),, pp. 144 - 161; Gov of India, Ministry of Finance, Department of Economic Affairs, *India, Pocket-Book of Economic Information 1964*, *Op. Cit.*, pp. 204 - 236; and Gov of India, Planning Commission, *The Third Plan Mid-Term Appraisal*, *Op. Cit.*, pp. 24 - 58 and *Fourth Five Year Plan : A Draft Outline*, *Op. Cit.*, pp. 62 - 71.

TABLE VII-A-43 : PLANNED AND ACTUAL CHANGES IN GROSS DOMESTIC PRODUCTION IN EGYPT, 1960-1965

(At 1959/60 Prices) (In L.E. Mns.)

Sector	G.D.P. in the Base Year (1959/60)	G.D.P. in the End Year (1964/65)		Change by the End Year		Actual Change As % of Planned Change
	Actual	Planned	Actual	Planned	Actual	
1. Agriculture	581.6	700.2	679.1	118.6	97.5	82.2
2. Industry	1,086.7	1,580.4	1,469.9	493.7	383.2	77.6
3. Electricity	18.4	39.9	37.9	21.5	19.5	90.7
4. Construction	102.1	220.2	181.2	118.1	79.1	67.0
Total of Commodity Sectors	1,788.8	2,540.7	2,368.1	751.9	579.3	77.0
5. Transport and Communications	135.5	199.1	208.6	63.6	73.1	114.9
6. Commerce and Finance	165.3	231.4	209.6	66.1	44.3	67.0
7. Residential Buildings	76.0	86.1	84.0	10.1	8.0	79.2
8. Public Utilities	11.1	13.9	13.4	2.8	2.3	82.1
9. Other Services	371.2	613.6	590.4	242.4	219.2	90.4
Total of Services Sectors	759.1	1,144.1	1,106.0	385.0	346.9	90.1
Grand Total	2,547.9	3,684.8	3,474.1	1,136.9	926.2	81.5

Notes : i — The above data slightly differ from those of Table VI-A-22, above, as the former data have been adjusted for change in statisticall coverage and methods of estimation.

ii — Adapted from the Source.

Source : United Arab Republic, Ministry of Planning, **Follow-up and Evaluation of the First Five Year Plan : 1960/61 — 1964/65, Vol. 1, Op. cit., p. 5.**

TABLE VII-A-44 : MAIN ACHIEVEMENTS OF PRODUCTION AND DEVELOPMENT BY INDUSTRIAL ORIGIN IN EGYPT,

1951 – 1965

Sector and Item	Units	Period I (1951 – 56) Base Year (1950/51)	End Year (1955/56)	Period II (1956 – 61) Base Year (1955/56)	End Year (1960/61)	Period III (1960 – 65) Base Year (1959/60)	End Year (1964/65)
I – Agriculture							
1 – Wheat	Mn. Ardeb	8.06	10.32	10.32	9.39	9.99	8.46
2 – Maize	Mn. Ardeb	10.19	11.80	11.80	11.33	12.06	13.82
3 – Millet	Mn. Ardeb	3.69	4.29	4.85	4.50	4.31	5.20
4 – Barley	Mn. Ardeb	0.83	1.07	1.07	1.11	1.30	1.08
5 – Rice	Mn. Dariba	1.31	1.32	1.32	1.37	3.63	2.18
6 – Beans	Mn. Ardeb	1.30	1.33	1.33	1.04	1.87	2.22
7 – Cotton	Mn. Qantar	8.08	6.69	6.68	9.56	9.16	10.00
8 – Sugar cane	Mn. Qantar	62.33	90.93	90.93	93.23	96.19	.08.65
9 – Oilseeds	Mn. Ardeb	5.93	5.87	5.82	6.00	7.98	8.49
10 – Onions	Mn. Qantar	5.42	8.33	8.33	10.44	11.22	14.27
11 – Length of Irrigation & Drainage Canals	000' Kms.	34.38	36.92	36.92	38.84	38.14	–
12 – Total Area of Land Reclaimed	000' Feddans	3.60	19.27	19.27	88.30	17.03	137.00
13 – Total Cultivated Area	Mn. Feddans	5.70	5.77	5.77	5.91	5.88	6.13
14 – Total Crop Area	Mn. Feddans	9.23	9.94	9.94	10.30	10.40	10.44
II – Power & Minerals							
15 – Electricity (installed capacity)	Mn. KW.	0.36	0.60	0.60	1.23	0.82	1.37
16 – Rock Phosphate	000' tons	527	615	615	627	599	573
17 – Manganese	000' tons	191	201	201	276	238	303
18 – Crude Oil	Mn. tons	2.33	1.72	1.72	3.73	3.15	6.28
19 – Iron Ore	000' tons	–	131	131	240	243	311
III – Industry							
20 – Basic Iron and Steel Products	000' tons	69	135	135	322	270	369
21 – Aluminium Products	000' tons	–	1	1	4	3	9
22 – Diesel engines	Nos.	–	–	–	716	195	1,478
23 – Automobiles (trucks, motor cars & buses)	000' Nos.	–	–	–	1.34	0.55	3.73
24 – Bicycles	000' Nos.	–	–	–	8	3	40
25 – Petroleum Products	000' tons	2,422	2,476	2,476	4,268	3,330	7,748
26 – Glass & Glassware	000' tons	17	27	27	36	33	54
27 – Cement	000' tons	951	1,351	1,351	2,067	1,844	2,402
28 – Nitrogenous Fertilizers	000' tons	111	172	172	441	277	945
29 – Phosphatic Fertilizers	000' tons	110	161	161	189	182	500
30 – Sulphric Acid	000' tons	53	70	70	102	98	200
31 – Paper & Paperboard	000' tons	20	34	34	60	40	[illegible]
32 – Cotton textiles (Yarn)	000' tons	56	75	75	108	98	134
33 – Cotton textiles (fabrics)	000' tons	40	50	50	73	69	64
34 – Sugar	000' tons	189	312	312	329	336	404
IV – Transport							
35 – Railways (freight carried)	Mn. tons	5.20	6.51	6.91	7.36	7.11	12.19
36 – Roads (including highways)	000' Kms.	16.43	18.50	18.50	20.79	20.09	22.23
37 – Suez Canal Traffic (in terms of vessels)	000' Nos.	11.72	15.34	15.34	18.44	18.17	22.00
V – Social Services							
38 – Primary & Preparatory Schools	Nos.	7,053	7,418	7,418	7,358	7,406	8,150
39 – Primary-school classes	000' Nos.	39.91	43.43	43.43	61.16	58.79	76.29
40 – Engineering Graduates	000' Nos.	0.50	0.81	0.81	0.90	0.87	2.03
41 – Hospital Beds	000' Nos.	33.74	46.70	46.70	56.67	53.67	62.14

Notes : i — (—) = not produced or not available.

ii — For the items of Sectors III to V. data for the base year, 1950/51, are for the year 1951/52.

iii — Ardeb = 150 Kgs., for Wheat, 140 Kgs., for Maize and Millet, 120 Kgs., for Barley, 155 Kgs., for Beans, and 135 Kgs., for Oilseeds.

iv — Qantar = 50 Kgs., for Cotton (fibre), 454 Kgs., for Sugar cane, and 45 Kgs., for Onions.

v — Dariba = 945 Kgs.

vi — Feddan = 1.038 Acres.

vii — Compiled and adapted from the Sources.

Sources : United Arab Republic, Ministry of Agriculture, **The Agricultural Economy, and Statistics,** the Annual Number, (Dec., 1963), **Op. Cit.,** pp. 8-10, 73, 158, 170, 190, 215, 231, 245, 258 and 334 ; United Arab Republic, Central Agency for Public Mobilization and Statistics, **The Annual Book of General Statistics of the U.A.R. : 1952-1964, Op. Cit.,** pp. 47-75, 113-119 and 127-149 **Selections from the General Statistics of the U.A.R.: 1951-52-1964/65. Op. Cit.,** pp. 22-52, 70-71 aid 92-94, and Basio Statistics, 1964, (Cairo, 1965), pp. 82-89, 107, 132-143 and 224-229 ; United Arab Republic, Department of Statistics and Census, **Ten Years of Revolution : Statiational Atlas, Op. Cit.,** Tables 18, 24, 51-56 and 74-79 ; United Arab Republic, Federation of Industries in the U.A.R., **Year Book : 1964** (Cairo, 1964), Part III, pp. 2-66 ; and United Arab Republic, Ministry of Planning, **Floow-up and Evaluation of the First Five Year Plan : 1960-61-1964-65, Vol. I, Op. Cit.,** pp. 13-30.

TABLE VIII-A-45 : POPULATION GROWTH IN INDIA AND EGYPT, 1945-1966

(In Mns.)

Year	India		Egypt	
	Total	Annual % Change	Total	Annual % Change
1945 — 46	339.1	—	18.8	—
46 — 47	343.6	1.3	19.0	1.0
47 — 48	348.1	1.3	19.5	2.5
48 — 49	352.6	1.3	19.9	2.0
49 — 50	357.1	1.3	20.4	2.5
1950 — 51	363.4	1.8	20.9	2.5
51 — 52	369.6	1.7	21.5	2.9
52 — 53	376.1	1.8	22.0	2.5
53 — 54	382.9	1.8	22.6	2.5
54 — 55	390.2	1.9	23.1	2.2
55 — 56	397.8	2.0	23.6	2.5
56 — 57	405.8	2.0	24.2	2.3
57 — 58	414.3	2.3	24.7	2.0
58 — 59	423.3	2.2	25.3	2.7
59 — 60	432.7	2.2	26.0	2.5
1960 — 61	442.7	2.3	26.6	2.3
61 — 62	453.4	2.4	27.2	2.6
62 — 63	464.3	2.4	28.0	2.7
63 — 64	475.5	2.4	28.8	2.8
64 — 65	487.0	2.4	29.6	3.0
1965 — 66	498.9	2.4	.—.	.—.

Notes : (.—.) = not available

Sources : For the years 1945/46 to 1949/50, see Table III.1, above. For the rest, for India, **Eastern Economist**, Vol. 48, No. 22, **op. cit.**, 1089, and the Annual Number, 1967, **op. cit.**, p. 1381. For Egypt, United Arab Republic, Central Agency for Public Mobilization and Statistics, **Selections from the General Statistics of the U.A.R. : 1951/52-1964/65, op. cit.**, p. 10.

TABLE VIII-A-46 : GROWTH OF PER CAPITA INCOME IN INDIA AND EGYPT, 1945 — 1966

(At 1948-49 Prices)

Year	India		Egypt	
	(Rs.)	Annual % Change	(L.E.)	Annual % Change
1945 — 46	262.3	—	27.4	—
46 — 47	258.5	—1.4	27.7	1.1
47 — 48	243.6	—5.8	30.2	9.0
48 — 49	249.6	2.5	35.8	18.5
49 — 50	250.6	0.4	34.3	—4.2
1950 — 51	247.5	—1.2	33.1	—3.5
51 — 52	250.3	1.1	36.5	10.3
52 — 53	255.7	2.2	33.2	—9.0
53 — 54	266.2	4.1	35.0	5.4
54 — 55	267.8	0.6	36.5	4.3
1955 — 56	267.8	0.0	33.9	—7.1
56 — 57	275.6	2.9	33.7	—0.6
57 — 58	267.3	—3.0	35.2	4.5
58 — 59	280.1	4.8	35.3	0.3
59 — 60	279.2	—0.3	38.1	7.9
1960 — 61	293.2	5.0	39.5	3.7
61 — 62	294.3	0.4	40.0	1.3
62 — 63	293.4	—0.3	42.3	5.8
63 — 64	301.1	2.6	44.5	5.2
64 — 65	317.0	5.3	45.6	2.5
1965 — 66	298.3	—5.9	—	—

Note : (—) = not available.

Sources : For India, data for the years 1945/46 — 1947/48 are obtained from the information in Tables VII-A-37 and VIII-A-45 above, the rest is taken from **Eastern Economist**, Vol. 48, No. 22, **Op. cit.**, p. 1088, and **Annual Number**, 1967, **Op. cit.**, p. 1372. For Egypt, all data are calculated from the information in Tables VIII-A-44, and VIII-A-45, above.

APPENDIX

B — DIAGRAMS

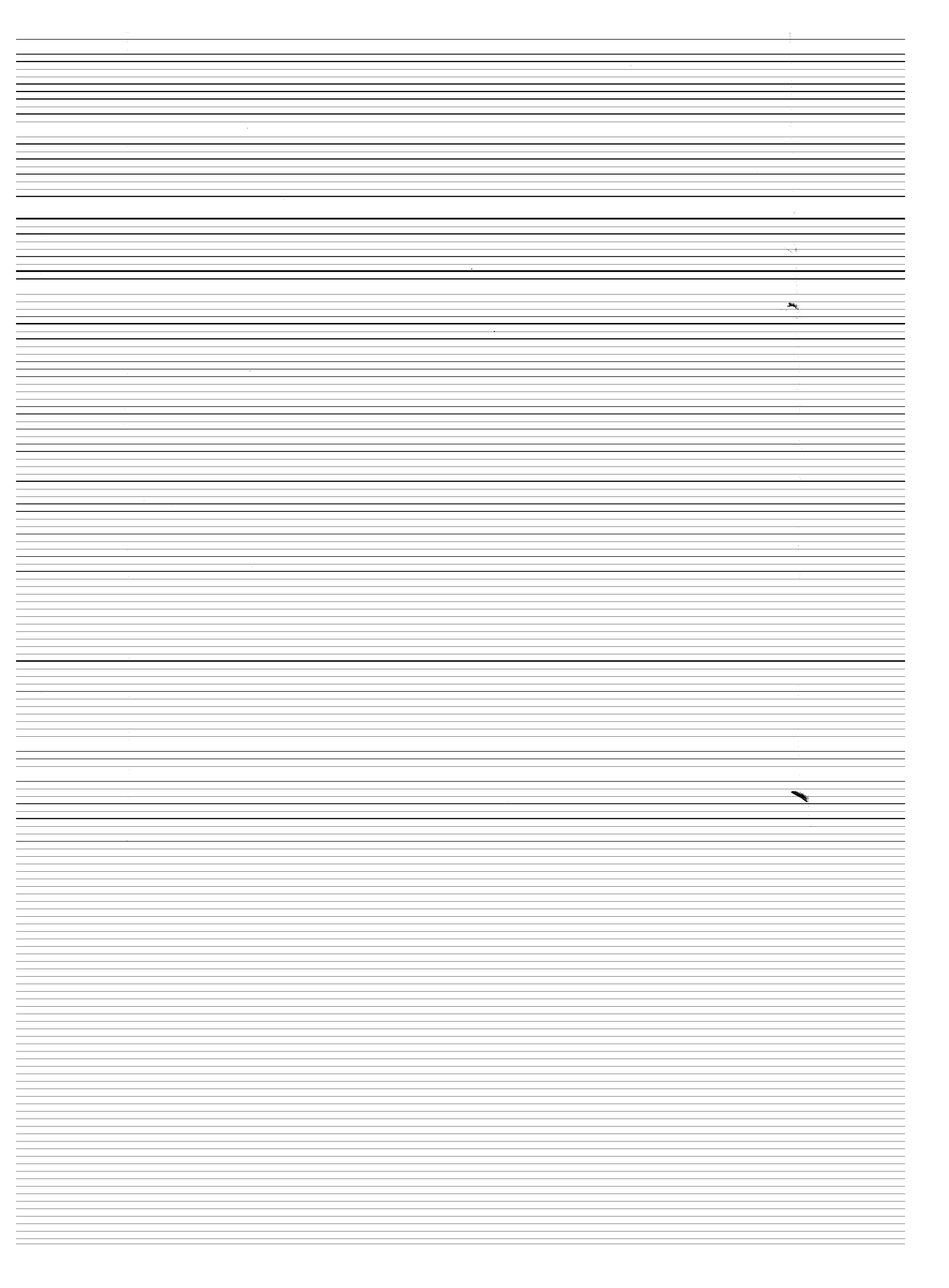


FIG.VII-B-1. PLANNING-REALISATION DIAGRAM OF ANNUAL RATES OF CHANGE OF NATIONAL INCOME IN INDIA. (1951-1966)

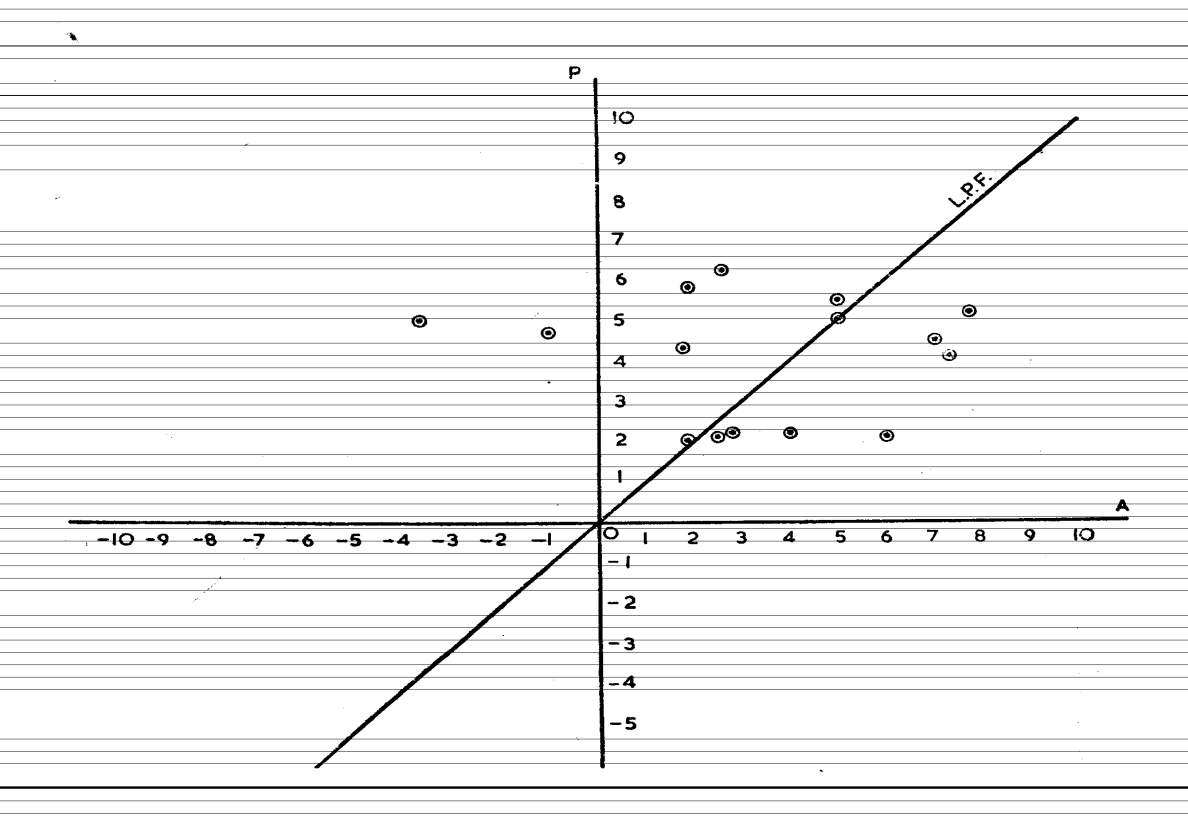


FIG. VII-B-2. PLANNING-REALISATION DIAGRAM OF ANNUAL RATES OF CHANGE OF NATIONAL INCOME IN EGYPT. (1951-1965).

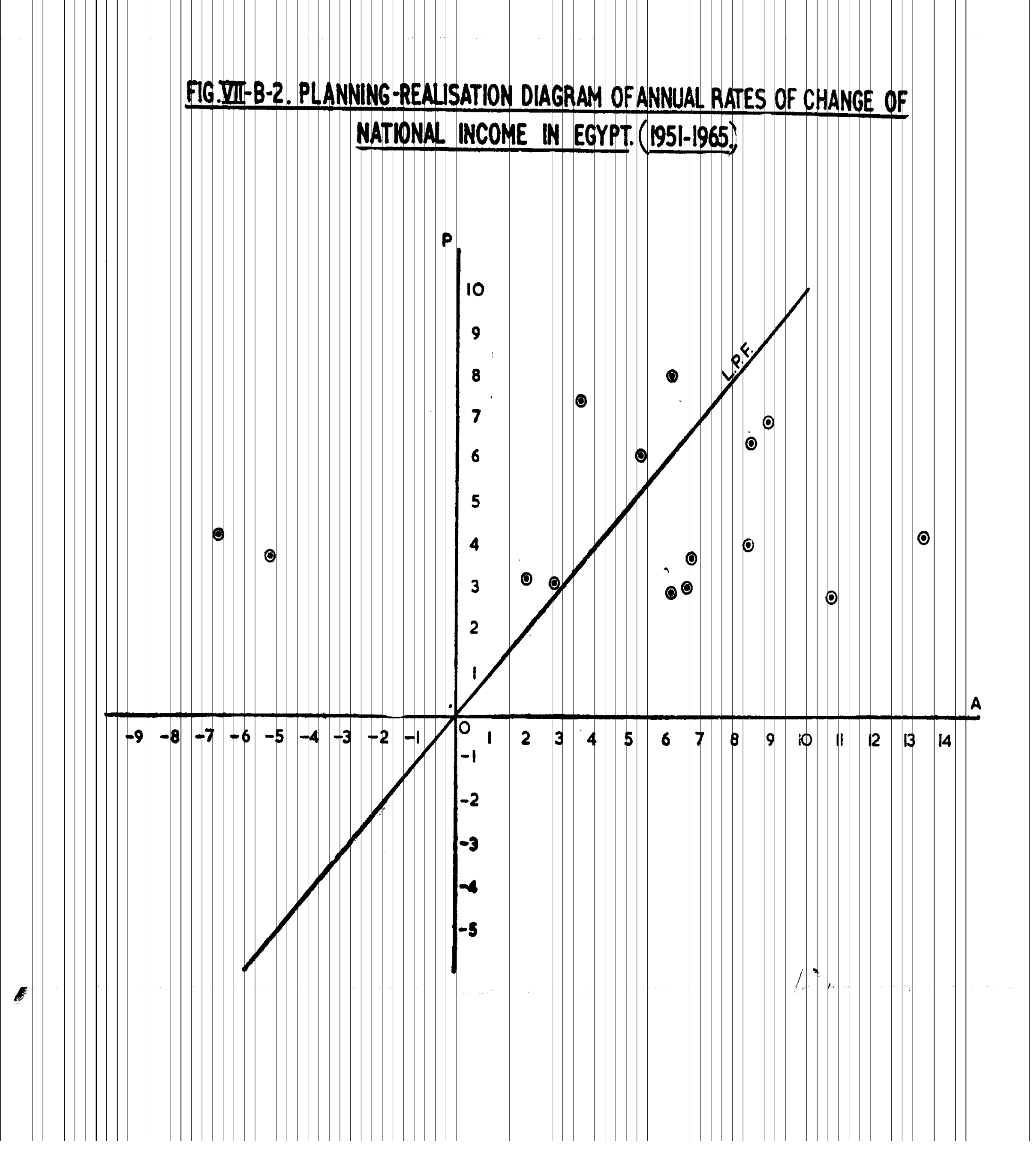


FIG. VII-B-3. PLANNED & ACTUAL ANNUAL RATES OF CHANGE OF NATIONAL INCOME IN EGYPT. (1951-1965)

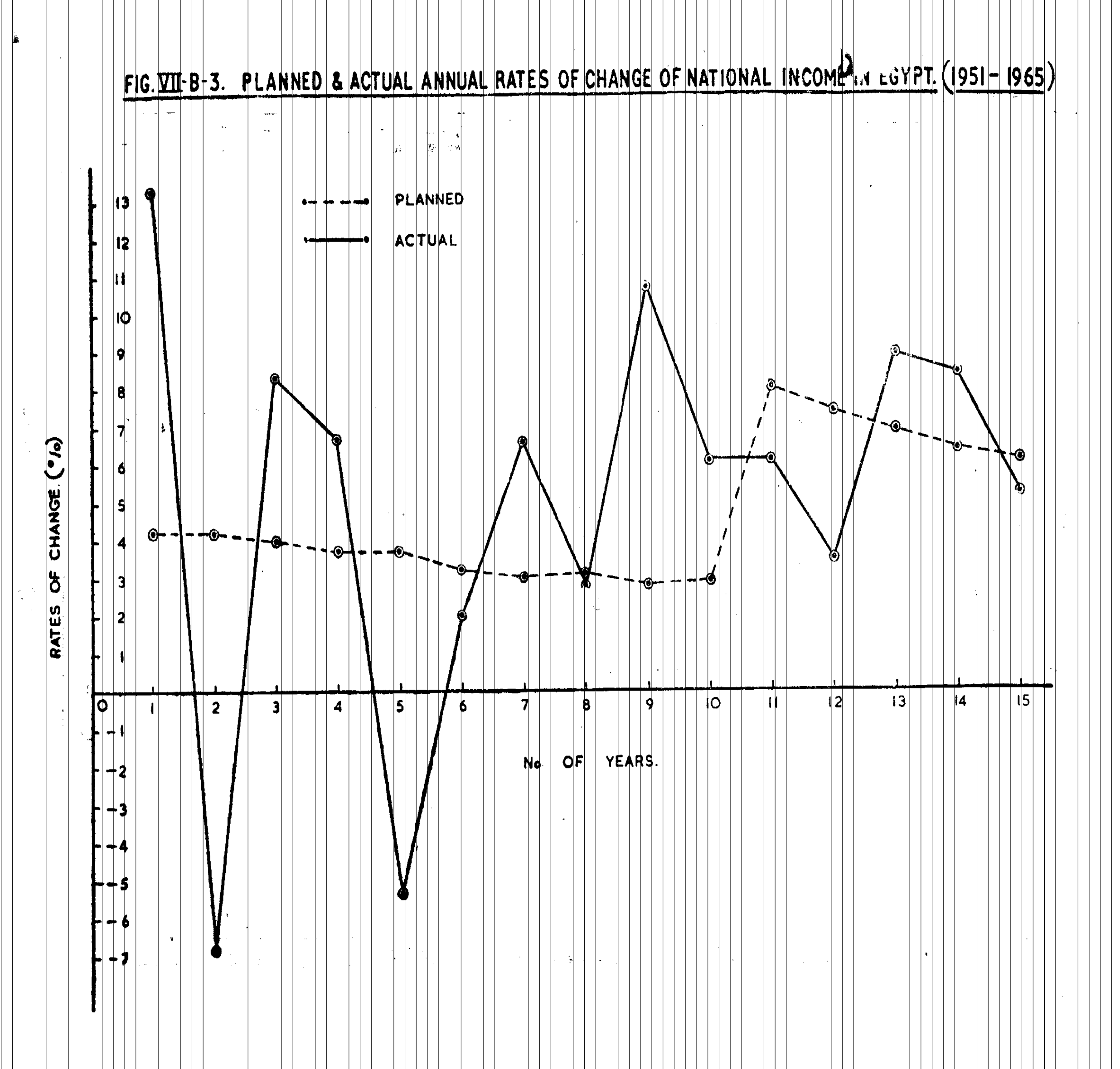


FIG. VII-B-4. PLANNED & ACTUAL ANNUAL RATES OF CHANGE OF NATIONAL INCOME IN INDIA. (1951-1966.)

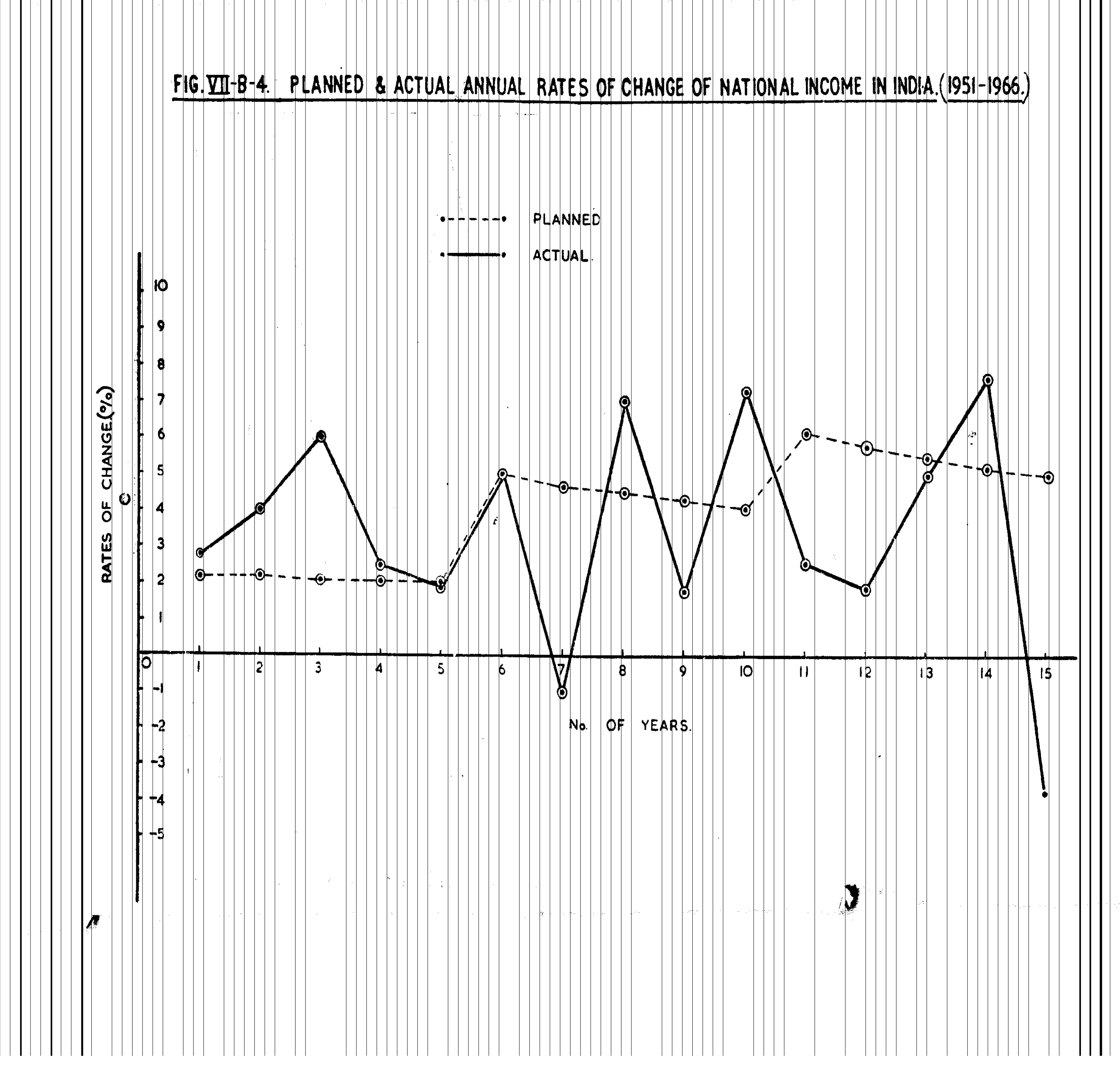
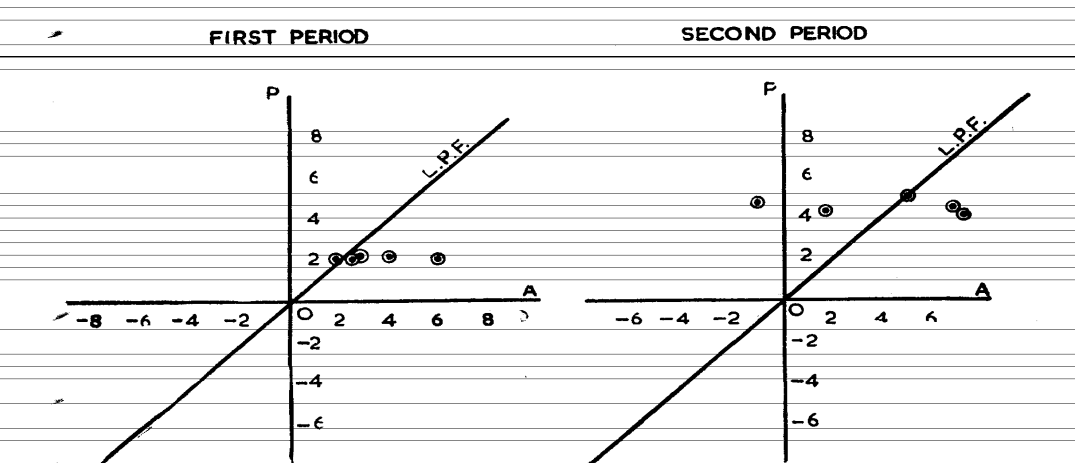


FIG. VII B-5 PLANNING-REALISATION DIAGRAMS OF ANNUAL RATES OF CHANGE OF NATIONAL INCOME IN INDIA. (1951-1966)



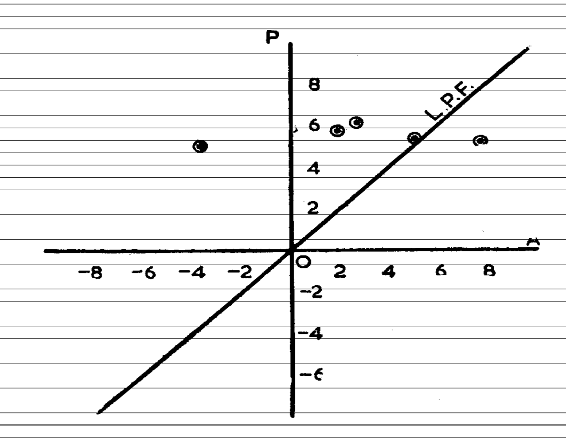
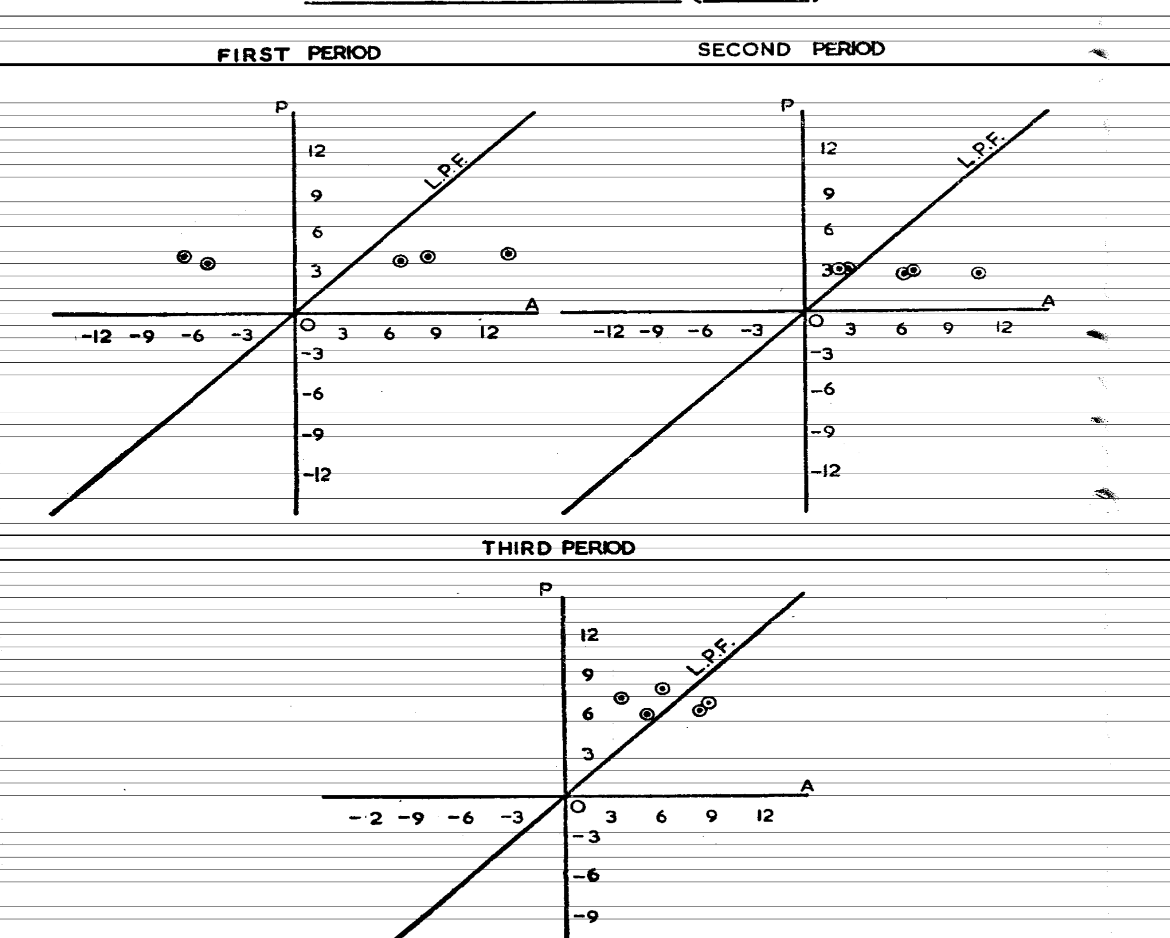
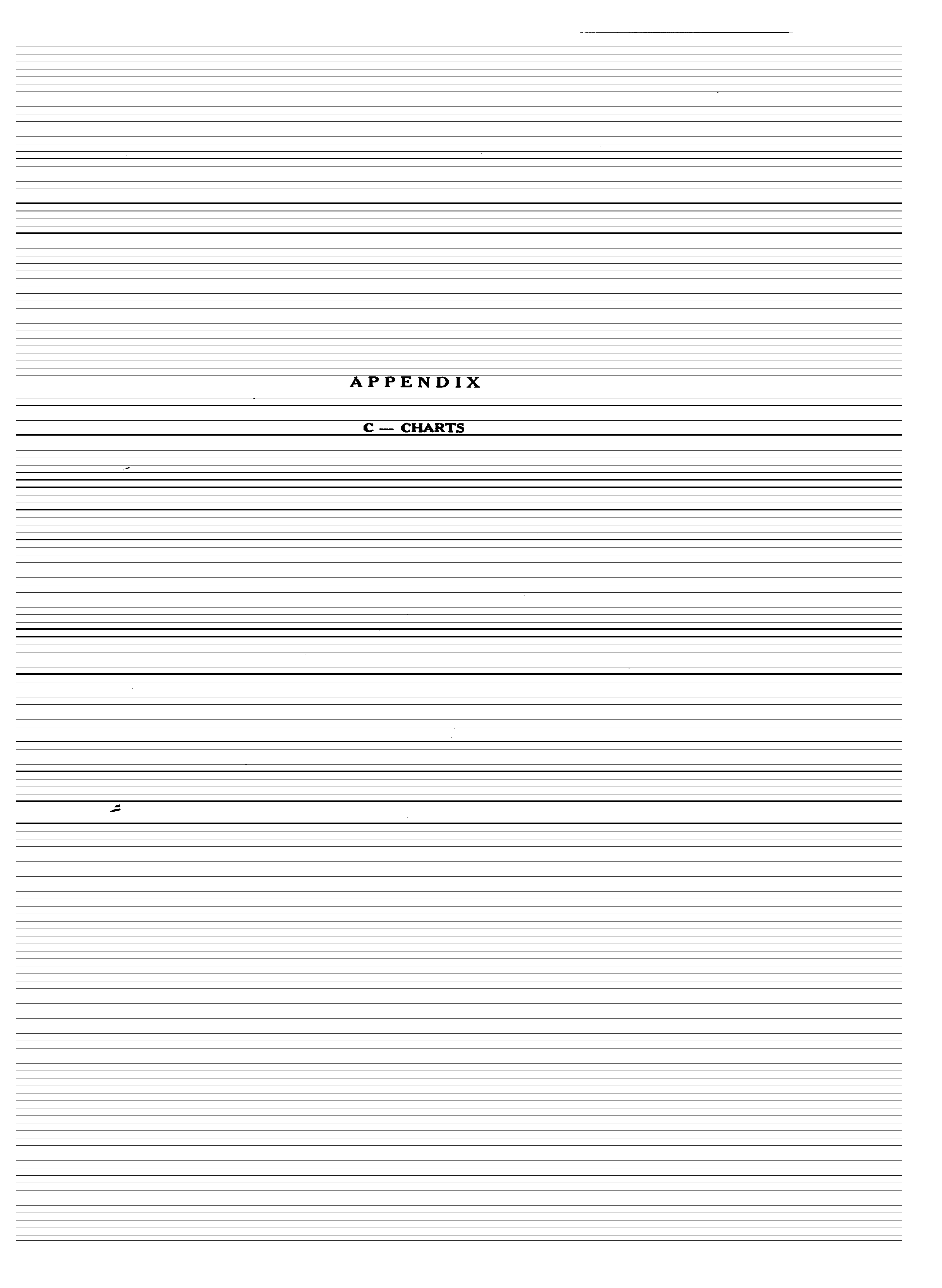


FIG. VII-B-6 PLANNING-REALISATION DIAGRAMS OF ANNUAL RATES OF CHANGE OF NATIONAL INCOME IN EGYPT. (1951-1965.)





APPENDIX

C — CHARTS

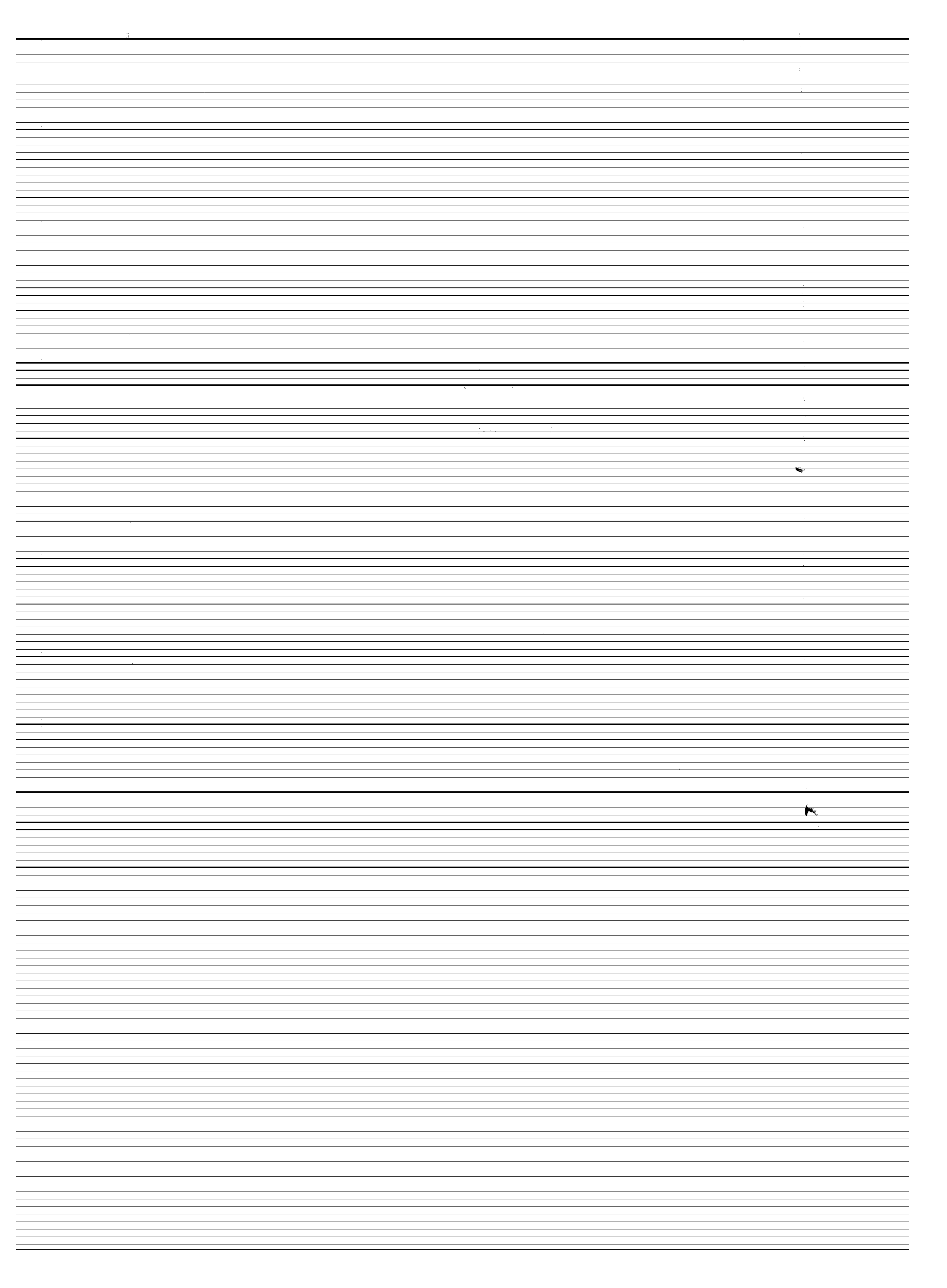


CHART VI-C-1. PLANNING MACHINERY IN EGYPT (U.A.R) (1965)

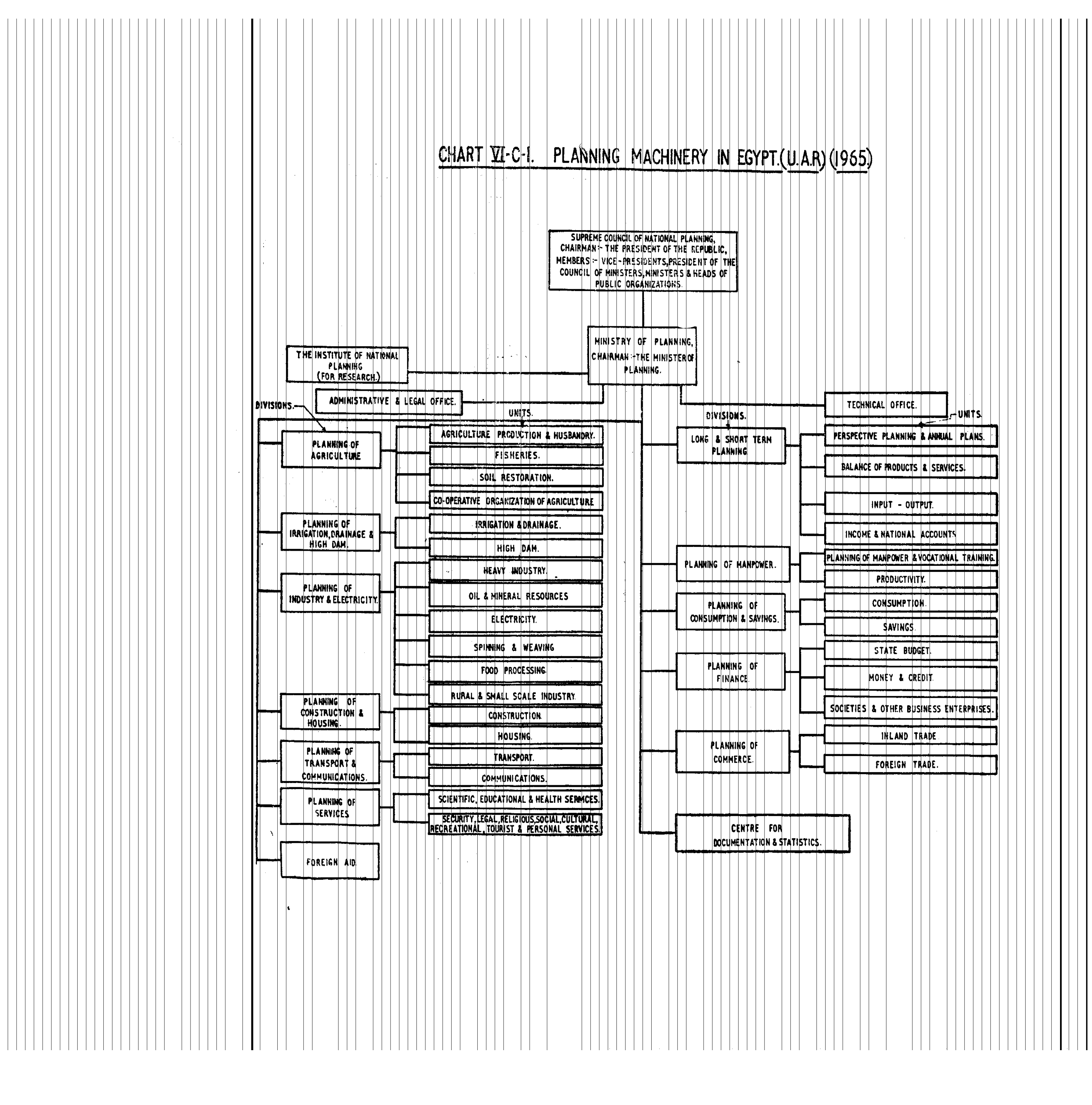
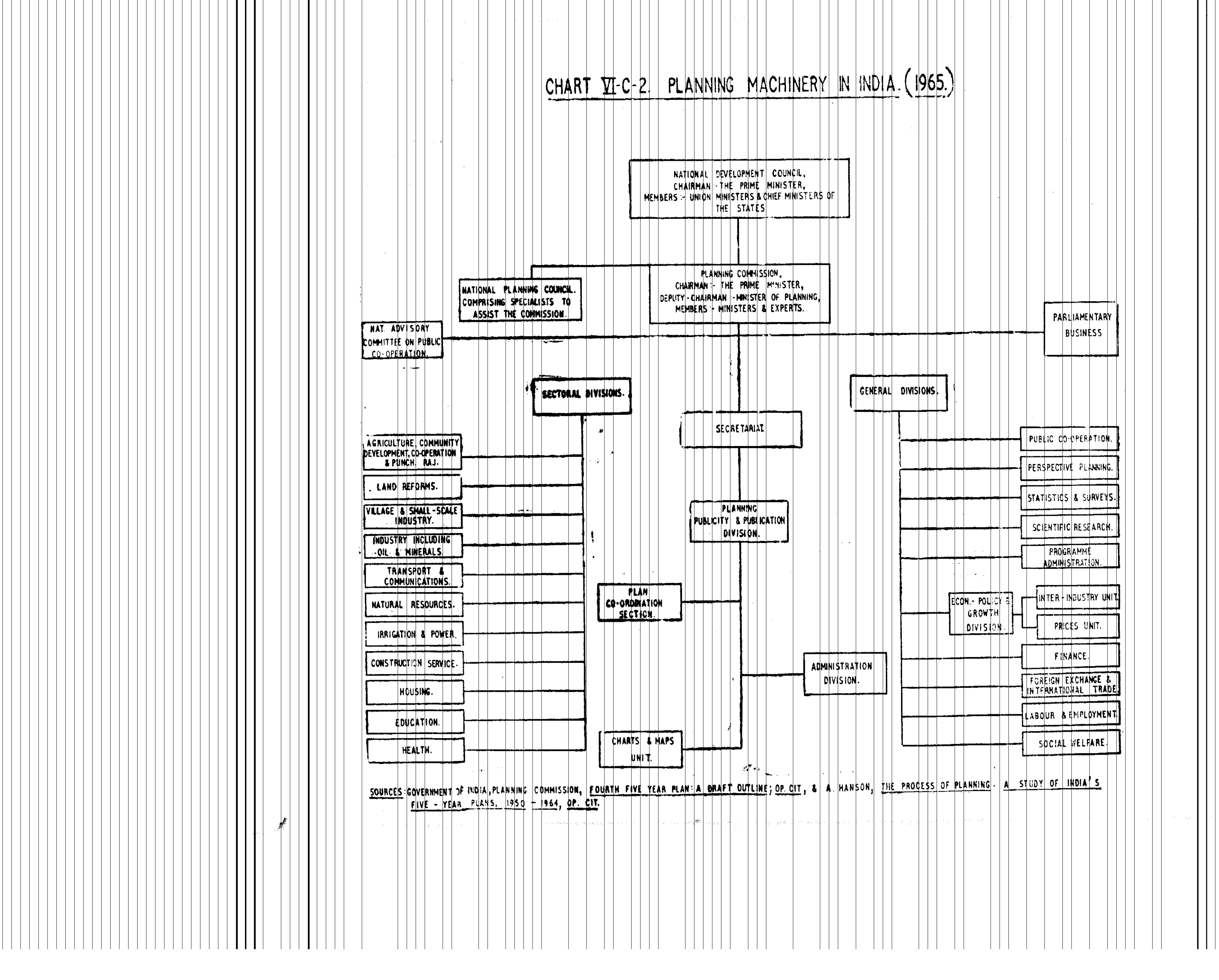


CHART VI-C-2. PLANNING MACHINERY IN INDIA. (1965.)



SOURCES: GOVERNMENT OF INDIA, PLANNING COMMISSION, FOURTH FIVE YEAR PLAN: A DRAFT OUTLINE; OP. CIT, & A. HANSON, THE PROCESS OF PLANNING: A STUDY OF INDIA'S FIVE-YEAR PLANS, 1950 - 1964, OP. CIT.

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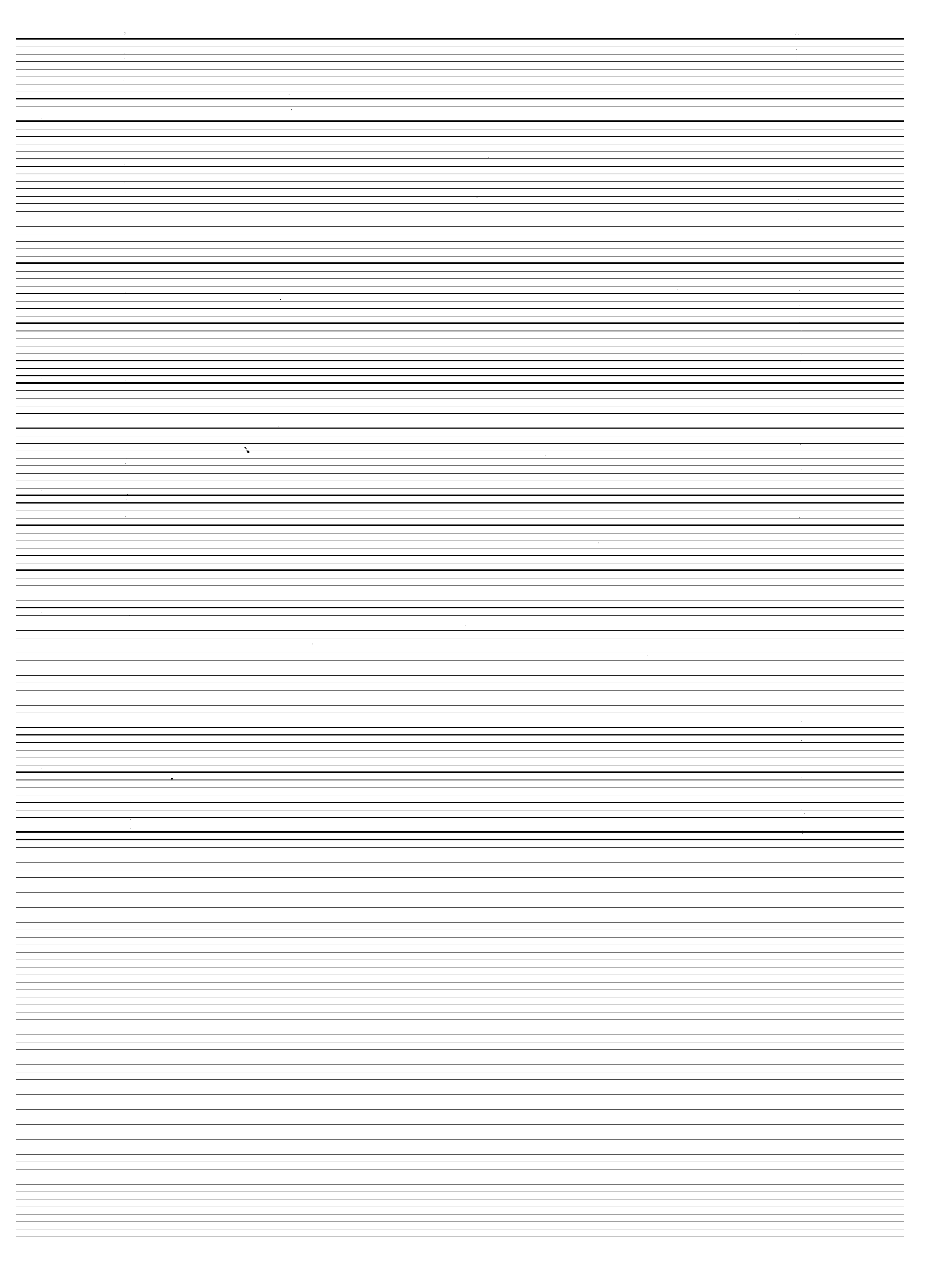
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